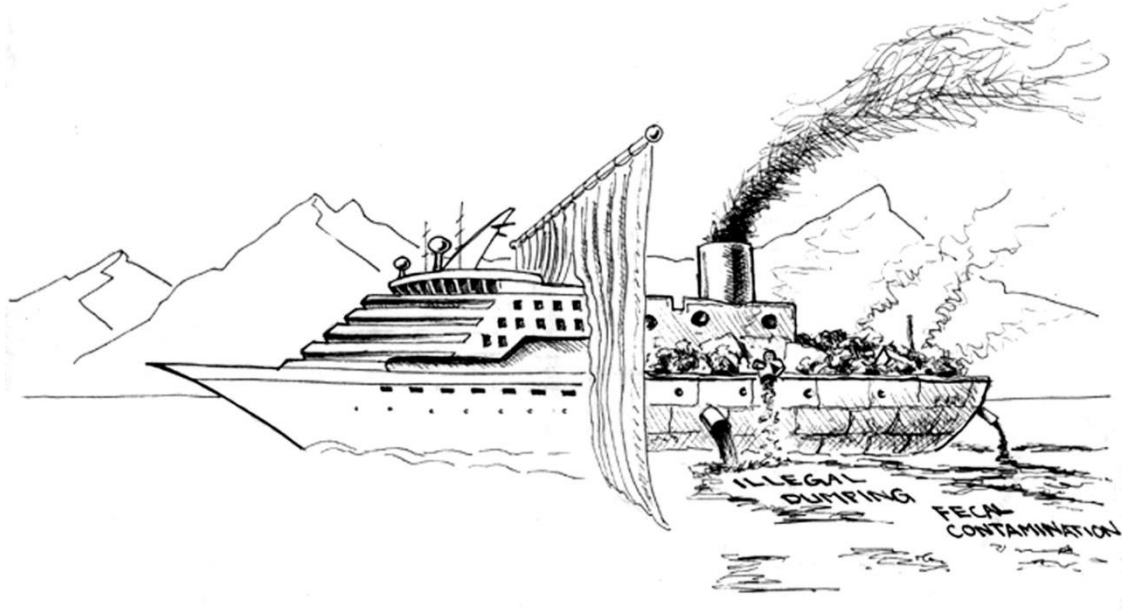# Transparency in cruise tourism:

Greenwashing cruise companies' legitimacy?

Source: Walker, 2010

Written by

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MSc Thesis Environmental Policy Group

Machiel Lamers

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For quality of life

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Disclaimer

I hereby declare that this thesis is wholly the work of Linda Hastedt. Any other contributors have either been referenced in the prescribed manner or are listed in the acknowledgements together with the nature and the scope of their contribution.

Where I have consulted the published work of others this is always clearly attributed. Where I have quoted from the work of others the source is always given. A list of the references used, is included. An appropriate referencing style is used throughout. With the exception of such quotations this thesis is entirely my own work.

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Date   Linda Hastedt

Acknowledgements

Executive summary

This thesis focuses on the transparency regarding the environmental performance of cruise companies. Cruise holidays are constantly becoming more popular, which leads to greater negative impacts and effects caused by cruise ships. Especially, emissions produced by the large vessels are criticized as they have immense effects on the environment, but also on human's health. In response, some cruise lines use promotion and advertisement to represent themselves as green in order to attract customers, but also to become accepted by the public. Thereby, cruise lines achieve a license to operate and become legitimate, improve their image and gain competitive advantages over others.

In order to get a better insight into the processes of information disclosure, this thesis is answering the main research question: "To what extent are cruise companies transparent when it comes to the environmental standard of their practices?". Using the method of content analysis, environmental information disclosed by cruise companies with regards to their operating cruise ships are analyzed. Environmental statements and visions published by three cruise lines are examined and compared. The case companies are AIDA Cruises, TUI Cruises and Mediterranean Shipping Company Cruises.

During field work, a variety of stakeholders of the cruise value chain were interviewed in order to get an insight into external views on cruise ships' practices and their level of transparency. Thereby, differences between cruise companies self-portrayal and external opinions could be identified. In addition, the role of external actors with regards to transparency is analyzed.

Among the case companies, AIDA discloses most and MSC fewest environmental information. Furthermore, it can be said that gaps exist between the environmental information disclosed by cruise companies and external opinions on their actual practices and transparency. Companies often publish information which are more positive than their actual performance. Several examples, which give an indication of greenwashing cruise practices, are elaborated. Based on that, it can be said that the degree of environmental disclosure does not always reflect an appropriate environmental status.

Further, actors which have strong influences on transparency and its reliability are identified. Governmental institutions have the power necessary to set binding regulations and standards for reporting. The demand by the public can steer the flow of information, as companies respond in order to gain legitimacy. Non-governmental organizations monitor and control the information published and point out drawbacks detected.

However, the public should be aware of the possibility of falsified environmental statements and choose consciously the information as well as the provider they trusts on.

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List of abbreviations

AIDA	AIDA Cruises
CO_2	Carbon Dioxide
CSR	Corporate Social Responsibility
DNV GL	Det Norske Veritas and Germanischer Lloyd
ESI	Environmental Ship Index
GHG	Greenhouse Gas
GRI	Global Reporting Initiative
IMO	International Maritime Organization
LNG	Liquefied Natural Gas
MALS	Mitsubishi Air Lubrication System
MSC	Mediterranean Shipping Company Cruises
NABU	Naturschutzbund Deutschland (German society for nature conservation)
NGO	Non-Governmental Organization
NO_x	Nitrogen Oxide
PM	Particulate Matter
SECA	Sulphur Emission Control Areas
TUI	TUI Cruises GmbH

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1. Introduction

Cruise tourism is recognized as a rather small sub-sector in the total tourism industry. Only five percent of global tourists travel by cruise ship (Cederholm, 2015). However, the cruise sector experiences tremendous growth and is deemed to be the fastest growing major tourism sector since the 1980s (Dowling, 2006; Wood, 2000). Its level of familiarity is increasing which is evidenced by a constant growth of seven to eight percent of annual passengers (Johnson, 2002). Figure 1 illustrates that future perspectives are continuously positively driven. Based on this development, cruise tourism can be evaluated as one of the most important sectors in tourism.

Figure 1: Growth of worldwide passengers carried on cruise ships
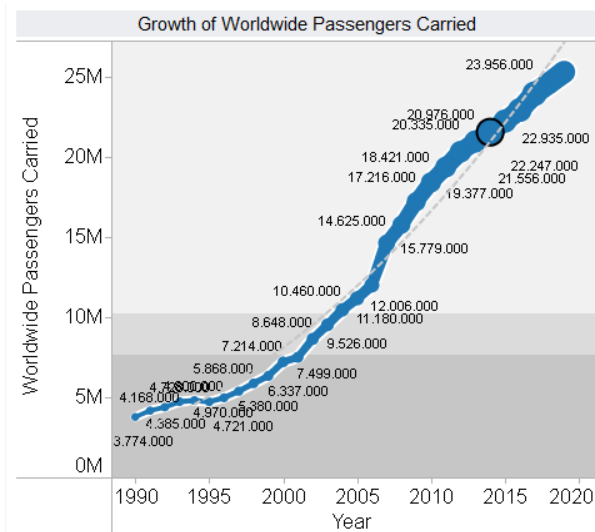
Source: Cruise Market Watch, 2014

The strong growth of cruise tourism also has its downsides. According to scientific literature, cruise ships cause immense long-term impacts on the natural- and social environment through air-, water- and noise pollution in marine areas (Copeland, 2007). A major topic of discussion among researchers is the emission production by cruise ships. It is criticized that they release too much of the greenhouse gas (GHG) emission Carbon Dioxide (CO_2) (Howitt et al., 2010). It strongly affects global climate change. Further, Sulphur Oxide (SO_x), Nitrogen Oxide (NO_x) and Particulate Matter (PM) are very harmful for peoples' health (Viana et al., 2014). Klein (2011) compares "a cruise ship's daily emissions are likened to the impact of 12,000 automobiles" (p. 110). Eijgelaar et al. (2010) concludes that "cruises produce relatively large amounts of CO_2 emissions" in the total tourism sector (p. 347).

Next to these scientific critical viewpoints, the issue of emissions in cruise tourism turned out to be very present and the most worrying during data collection. Therefore, emissions are the most important factor to take into consideration in this research.

In response to the negative arguments and with regards to image reasons, cruise companies present sustainable visions and high environmental efforts on their public channels (Meng et al., 2011). Annual reports indicate an environmental vision and ambitions to suggest environmental friendliness. Jenkins and Yakovleva (2006) add that "the level of environmental disclosure has increased over the years". Both continue more critical: "Companies still provide relatively little detailed environmental information in their annual reports, and it is often qualitative and not quantitative" (p. 273). Klein (2011) criticizes that such an openness is missing when it comes to the actual practices of cruise lines.

Different organizations even blame cruise companies of dissembling environmental friendliness (Die Welt, 2011; Scheel, 2013). Further, Scheel (2013) complains that environmental actions are often presented as voluntary initiatives while they are actually based on political binding regulations. These critics suggest a non-conformance of the environmental statements of cruise line companies and their practices. Papathanassis and Vogel (2012) criticize that "cruise lines prefer less rather than more transparency in their own data" (p. 254). A lack of information about cruise ship practices might result in lacking control over the activities, especially environmental unfriendly activities.

A combination of these aspects appear to be an interesting field of study, wherefore this thesis aims to identify to what extent cruise companies are transparent when it comes to the environmental status of their practices. Providing an insight into the processes of disclosure would make these better understandable, easier to influence and therefore increase the extent of transparency. The outcomes are important for the society, especially for (potential) cruise tourists. Florini (2007) wrote that "citizens see the right to know as a fundamental right" (p. 8). Therefore, companies' openness might influence their image as well as consumers' awareness and trust towards the company and therefore the decision making behaviour. As cruise tourism is an immense growing sector driven by competition, cruise line companies might rethink their strategies concerning their transparency towards the public. Overall, this could lead to a push of making information available for the society.

1.1. Research question

In the course of this thesis the following research questions are addressed:

"To what extent are cruise companies transparent when it comes to the environmental standard of their practices?"

- What kind of environmental information are disclosed by cruise companies?
- Which expert information exist about cruise companies' emission practices?
- Which role do external actors play in the transparency of cruise companies?

1.2. Scope

The research is restricted by a geographical focus on the north-west region of Europe, especially Germany and the Netherlands. Statistics evidence the German market position as the second largest worldwide, behind the United States. 1,77 million Germans went on a cruise last year (Neumeier, 2015). Within Europe, Germany has the largest market share (Vollefahrtvoraus, 2015). Further, a lack of scientific research makes the focus on Europe important and interesting. Compared to the cruise

market in the United States, the European market has little attention in scientific work and less information are available.

Next to the geographical scope, the research focuses on cruise companies which operate in the maritime cruise tourism sector. Global holiday tours on large scale ships are of interest caused by media attention. Large seagoing cruise vessels are often negatively represented by the media with regards to transparency and environmental practices, which makes it curious to get a better understanding of the relation and processes. Therefore, river cruises are excluded of this research. Three cruise line companies were chosen as central, which are AIDA Cruises (AIDA), TUI Cruises GmbH (TUI) and the Mediterranean Shipping Company Cruises (MSC). The selection of these cases is based on three criteria. Firstly, the location of the company was important in order to fit into the geographical scope. Secondly, the European market position of the company was taken into consideration. The case companies are ranked as the three largest European cruise provider, namely 1. AIDA, 2. TUI Cruises and 3. MSC (Urlaubsziele, 2013). Thirdly, environmental publicity, such as awards, were taken as a parameter.

1.3. Methodology

In order to answer the research questions, different methods of data collection were used to gain relevant information and to make this study reliable. On the one hand, desk research was applied by conducting literature research and a content analysis. These methods were chosen as scientific literature provides theoretical information with regards to underpinning concepts and theories to this research. The content analysis focuses on environmental related sections and documents published on the official webpages of AIDA, TUI and MSC in order to gain specific case related information. Different statements concerning their environmental vision, effort and attitude were of high importance. In order to get additional insights, the case companies' official social media accounts on Facebook, Twitter and YouTube were analyzed. These platforms are used by all three companies to make internal information public. It gives the opportunity to provide written and verbal statements, pictures and links. Further, online entries lead to discussions among the society related to environmental topics. This also enabled the inclusion of the public opinion. In order to get a holistic insight, different kinds of reliable externally written documents were analysed which provided information about cruise emission practices and the role of external actors in transparency.

To gain additional and more specific data, field research was applied as well. Qualitative data collection was realized through the conduction of interviews. In order to get deeper insights into individual views and opinions, semi-structured in-depth interviews were conducted either face-to-face or via telephone. As each interview contained open-ended questions, new topics and information emerged which are of high importance. Knowledge gathered from the interviews helped to get an

insight into the particular aspect of emissions as well as opinions with regards to the importance and influences of external actors on transparency.

A variety of interview participants was chosen due to their knowledge and experiences, necessary to achieve a complemented data collection. Actors representing (non-governmental) organizations, researchers and ports were contacted and interviewed (table 2). The non-governmental organization (NGO) Atmosfair has a strong consideration as the actor is highly influential when it comes to information about emissions and their role on transparency.

Each interview was recorded under the condition of agreement with the interviewee. Based on the sound recording, every interview could be transcribed, with the consent of using individual names. Based on the interview transcriptions as well as content analysis data, the thesis analysis could be conducted by the use of grounded theory. Based on important and remarkable aspects, coding schemes were created which provide a structure for the findings chapter. Due to the geographical scope, cruise lines' written documents and the majority of interviews were conducted in German. Quotes used to strengthen arguments are transcribed into English in all conscience. Still, the original German quote can be found as a footnote.

A few actors decided not to participate in this research. The reasons for unwillingness differ. Both shipyards, Meyer Werft and Lloyd Werft, refused a conversation due to lacking interest and relevance. The Dutch leading tour operator for cruises, Zeetours Cruises, rejected an interview as negative consequences were expected due to the topic of transparency. Zeetours Cruises highly relies on the commercial business with their cruise line partners, which they do not want to endanger. As providing information about cruise companies' transparency creates a risk for Zeetours Cruises, it obviously can be identified as a hot topic, where people rarely want to talk about. It might be that the facts are not as positive as expected which reasons in such a reserved and secretive attitude.

Further, this is maintained by the unwillingness of AIDA, TUI and MSC to comment on this research. The cruise companies avoid the confrontation with the topic of environmental disclosure as well as their environmental practices. These rejections of participation clearly show the sensitivity of the research topic. Further, such a closed attitude of different actors is an important finding, as it gives the indication of hided information which do not correspond with public expectations. Negative information could have negative impacts on the provider which leads to closeness. However, it also shows that more research needs to be done in order to get more insights into it and to stimulate openness.

1.4. Outline of the thesis

The thesis continues with a literature review on the theoretical background, which narrows down key concepts and theories related to this study. Starting with transparency, as it is the overall subject and followed by environmental disclosure, as it is a subpart of it. Environmental legitimacy depends on the disclosure of environmental information by the environmental management. Followed, the concept of greenwashing is reviewed as a practice performed by the environmental management.

Chapter 3 presents the findings of this research. Firstly, the environmental self-portrayal of AIDA, TUI and MSC are elaborated. A comparison gives a clear overview of similarities and differences with regards to the fleet, environmental reporting, environmental awards, environmental projects and social media platforms. The chapter continues with expert views on emission production and transparency. Further, the roles of external actors with regards to environmental disclosure are analyzed.

Thereafter, the findings are discussed, also in relation to the theoretical background of different concepts and theories. In addition, limitations of the research are detected and analyzed. The final conclusion chapter will end up this study by concluding the outcomes and giving recommendations for future research.

2. Theoretical background

The theoretical background of this study is based on the review of a diversity of scientific literature. In the following subchapters, theories and concepts which are linked to the thesis topic are narrowed down and reviewed.

2.1. Transparency

This thesis relates transparency to the entire and truly openness of companies towards the general public. Ball (2009) emphasizes transparency as the "opposite of secrecy" (p. 297). More precisely, transparency could also be described as the "demand for information, the ability of citizens to obtain information, and the supply and actual release of information" (Ball, 2009, p. 298). Klotz et al. (2008) simplistically calls this "the exchange of information" (p. 629). This diversity of definitions show that the concept is accepted as being ambiguous.

When it comes to the types of information provided, three types of transparency are distinguished which are goal- , knowledge- and operational transparency. Goal transparency means to provide information about company's objectives. Knowledge transparency describes the publications of data and information about the company's practices. Operational transparency includes announcements around internal decision making, such as investments or cooperation (Hahn, 2002).

Transparency is described as not being a one-dimensional concept (Edey & Stone, 2004). Companies have different means to communicate with the society. These include for example reports, media statements and social media platforms. Out of these, reports are considered as being the most important source of information (Jenkins & Yakovleva, 2006). Each communication method can be applied by small, medium and large enterprises which generates equal transparency and therefore equal benefits. However, often smaller companies have to deal with lacking human and financial resources (European Commission, 2014).

2.1.1. Development

The roots of transparency can be found in the financial sector. The target group of receiving information were business competitors. They should start to communicate, build trade association and mainly start to exchange price information. Potters (2009) writes that "genuine competitors do not make daily, weekly and monthly reports about their business to their rivals" (p. 2). Such a "lack of transparency is the main reason for imperfect competition" (Hendershott & Jones, 2005, p. 745). This statement shows that transparency in the past was not prestigious and businesses worked isolated. Compared to standards today, it can be said that transparency was lacking (Terdiman, 1993).

Since 2013, an official transparency directive was implemented by the European Commission, that obligates companies to report financial and non-financial information. Still, every member country has to decide in which ways to use the directive. Therefore, critics exist who argue that the regulation is not uniform, not strong enough and too indirect (Mishkin, 2004; Stiglitz, 2009; Knill & Lehmkuhl, 2002). An obligation for general transparency exists but the practice can be improved. Furthermore, the target group of information receiver changed over the years towards the general society. People started to demand for information and put pressure on companies.

Today, the major content of transparency changed towards internal related company information. This shows that finances are no longer the only characteristic of competition. Even transparency itself can be identified as such a characteristic. Companies use their status of transparency as competitive advantage (Potters, 2009). Hendershott and Jones (2005) generalized that "transparency is associated with better market quality" (p. 746). This led to an increase in the use and importance of transparency (Potters, 2009; Hendershott & Jones, 2005). A technological innovation that supported the extension of transparency was the internet. Information could be provided and exchanged much faster. The growth of social media platforms pushed this development further (Meier, 2009). Mol (2010) adds that we still "need more rather than less transparency" (p. 133). Compared to the past, the use of transparency increased, but still some authors criticize that the development and application is not enough.

Driven by the developments of the Information Age, Mol (2010) argues that transparency will become more important in the future. As a future trend, a further development towards publishing non-financial information is predicted. This includes providing data about environmental and social aspects whereby the concept of Corporate Social Responsibility plays an important role (European Commission, 2014). This trend shows the growing importance of the environmental status and away from the past economic view. Further, the trend might empower environmental organizations which become more into a focus with the trend. Mol (2010) forecasts that transparency will become multi-layered, from simple transparency to reflexive transparency. This means that two types of transparency will develop which are the first and secondary transparency. First transparency will be simply information provision and openness of companies towards the society. Secondary transparency will focus on new transparency powerbrokers. These are disclosing agencies which facilitate or hinder transparency (Mol, 2010). Such a development might lead to an increase of transparency, as specialists for disclosing information assist in a professional way and therefore could make transparency more attractive.

2.1.2. Benefits

Information receiver benefit from companies' openness as they become informed and get a greater insight into the operations of an organization. From an organizational point of view, the practice of transparency creates a couple of benefits when disclosing information. Therefore, proponents of transparency see the concept as an "essential ingredient of success in business" (Meijer, 2009, p. 257). The European Union agrees and even states on their website that "transparency leads to better performance" (European Commission, 2014, p. 1). The authority thoroughly summarized the benefits: "transparent companies perform better over time, have lower financing costs, less business disruptions, attract and retain talented employees, better relations with consumers and stakeholders, and are ultimately more successful" (European Commission, 2014, p. 2). This list shows that the use of transparency can deliver significant advantages and improvements for companies.

In order to gain such benefits, several requirements could be identified which are needed to take into consideration. Klotz et al. (2008) explains that different attributes of transparency need to be taken into consideration in order to be successful. These are "recognition of status, recognition of responsibilities, recognition of interdependencies, recognition of problems and facilitation of feedback on performed activities" (p. 629). As a company, being open on the content of these attributes increases the chances of taking benefits from information disclosure. From a communicative point of view, Mishkin (2004) wrote that transparency becomes beneficial when it helps to improve the communication with the target group. It is important to choose the content of information disclosed according to the demands and expectations of the target group. More specific, what kind of information are delivered, how they are delivered and how they are utilized by the receivers influence the success of transparency (Loewenstein et al., 2011). A clear structure and message of information provided can help to modify the behaviour and functioning of the target group (von Furstenberg, 2001). Such an influential status gives the information provider much power, which can be identified as an additional benefit. However, Mishkin (2004) pointed out that "some types of transparency may not help to reach this" (p. 25). If the target group is not addressed according to the requirements and it might be that practicing transparency turns out not to be beneficial.

Overall, of highest importance is to apply and practice an individual appropriate type of transparency for the addressed target group (Mishkin, 2004). It is the greatest chance of earning most benefits and to create crucial differences between companies and advantages of operation. In order to support this, von Furstenberg (2001) wrote that benefits can be "fostered by appropriate policies to promote transparency" (p. 112).

2.1.3. Pitfalls

Transparency can also create problems for information provider and receiver. A major downside of information exchange is the loss of privacy of the information provider (Introna, 1997; Cohen, 2008; Meijer, 2009; von Furstenberg, 2001). If a company externalizes information either obliged or voluntarily, they always lose parts of their privacy. Depending on the amount and extent of information published, the privacy becomes less. Carpenter et al. (2003) explains that transparency and a loss of privacy can become very problematic for companies. An example demonstrates that publishing company's weakening may accumulate to a constant or even aggravate company's process and status. This shows that transparency might increase the vulnerability of an information provider who might be negatively affected. However, it can also be said that the outcomes also depend on the type of information revealed.

Linked to this, Mishkin (2004) warns companies that announcements often results in demand for further information of similar or interlinked topics. Such outcomes make it difficult for companies to plan publications and make them even uncontrollable. Further, the author criticizes that transparency "complicates the communication process with the public and might weaken customer numbers" (p. 1). Gadzheva (2007) critically points out that transparency increases the risk of the misuse of information. A wider range of people have access to the information and may use it for different purposes. Such a situation is also difficult to control by the provider. The author continues that surveillance might increase as well. Information receivers could observe critical developments more detailed which makes the provider more vulnerable. These problems make clear that the type of information published and its distribution channel does not only influence the success of transparency but also its failure. Therefore, it is from high importance for companies to think well through what to publish and be prepared for reactions.

When it comes to information receivers, antagonists argue that transparency leads to more uncertainty, confusion and to a decline in trust (O'Neill, 2002). This argument is in line with Mishkin's (2004) statements. Transparency might lead to a more complicated two-way communication process. Both involved actor groups can be effected negatively, but still have their own rights. This leads to the conflict which is hardly discussed, namely where transparency should intersect between public's right to know and company's right of privacy (Meijer, 2009). These disadvantages and conflict of both sides raise the question whether transparency should increase further or not.

2.1.4. Limits

Different opinions exists about how far transparency can go, how far it should increase further and when it is enough. The proponents are in favour of finite transparency and make up the dominating

group. Edey and Stone (2004) argue that it is "not automatically the case that more transparency will always be better" (p. 77). Von Furstenberg (2001) agrees and adds "the more the better does not hold for transparency" (p. 111) and continues that transparency should not be maximized at any level. Mishkin (2004) describes the end degree of transparency is reached when impacts of it become negative. If this is the case, the company practices too much transparency. According to the author, an increase of transparency should be an advantage for companies and not result in negative effects. It is important that transparency is balanced between supply and demand or costs and benefits in order to be profitable for every concerned person (von Furstenberg, 2001; Cormier & Magnan, 1999). As the previous paragraphs show, more disadvantages of transparency for companies as well as for the society could be identified compared to advantages.

Proponents think that the current amount and range of information are not enough. According to Mishkin (2004) "transparency is far from complete" (p. 4). Companies often publish only fragmented pieces of information. The content of this information often differs between companies. This is caused by a lack of extensive and uniform regulations. In contrary to Edey and Stone (2004) and von Furstenberg (2001), Mol (2010) argues "the more transparency, the better" (p. 133). More transparency is better for the environment, democracy and empowerment of oppressed people (Mol, 2010). By limiting transparency such positive outcomes will be hindered. Although less benefits of transparency could be identified, compared to pitfalls, they are much more crucial and in-depth. This makes the benefits more important and supports more information disclosure.

2.2. Environmental disclosure

Identified as subheading of transparency is the theory of environmental disclosure which will be of major focus in this research. Therefore, described future trends, benefits and pitfalls are also applicable for environmental disclosure. In addition, an upcoming obligation to report on European level from the end of 2016 indicates the growing importance of the theory of environmental disclosure.

Environmental disclosure means that published data focuses on the environmental performance of companies. Li & Li (2012) summarize that "environmental information transparency performs social and learning functions indispensable for green growth" (p. 324). Thereby, two different push factors could be identified which result in environmental disclosure. First, environmental openness responses to pressure from external actors. Second, it is driven by an economic decision, namely the costs and benefits of information disclosure (Cormier & Magnan, 1999). Thereby, a difference is made between hard disclosure items and soft disclosure items. Hard disclosure items include a company's structure and management systems which produce and publish hard data such as emission statistics or fines regarding environmental matters. On the other hand, soft disclosure items focus on a company's vision

and environmental strategies. For instance, environmental effort, projects and awards are published (Clarkson et al., 2008).

According to Slater and Gilbert (2004) the disclosure of such environmental information by a company indicates that it has the "ability to monitor, measure, and manage the risks and opportunities associated with complex issues" (p. 43). Further, it can help to stimulate companies' morality and the ability for better performances (Meijer, 2009). It was found out that a strong positive interrelation exists between environmental disclosure and environmental performance (Clarkson et al., 2008; Barth et al., 1997; Al-Tuwaijri et al., 2004). If a company discloses environmental information, their environmental performance is good. Also, if the environmental performance of a company is satisfying and successful, it will prefer a disclosure of environmental information. Better environmental performance in turn positively influences the environmental quality (Pil & Rothenberg, 2003).

Since 2013, a general transparency directive is implemented which forces companies to report. However, a regulation especially addressing environmental aspects is missing. From December 2016 onwards, the European Union obligates European companies a reporting commitment for non-financial information. By implementing this regulation, the European Union supports the trend of being transparent with regards to environmental and social matters. Within the European Union, around 6000 companies and organizations are obliged which employ more than 500 workers or have at least an annual turnover of 40 million euros (Aachener Stiftung, 2015). This limitation excludes and exempts many industries and companies from their commitment of being transparent.

Further, the new regulation focuses only on Corporate Social Responsibility (CSR) (Aachener Stiftung, 2015). The World Business Council for Sustainable Development defines CSR as "business' commitment to contribute to sustainable economic development, working with employees, their families, the local community, and society at large to improve their quality of life" (Kotler & Lee, 2005, p. 3). An increase of CSR transparency can be expected while it can be criticized that one criteria for reporting is too weak and superficial. Further, environmental matters are not in the front, as CSR firstly focuses on social concerns.

As the binding regulation becomes not enacted before the end of 2016, it makes clear that companies which already publish environmental information do it on a voluntary basis. Researchers criticize that the amount of these companies is too rare or the information provided are quite minimalistic and only positively driven (Mitchell, 1998; Gray et al.,1995; Lyon & Maxwell, 2011). Others wrote that firms increased their level of environmental disclosure (Cormier & Magnan, 1999; Gamble et al., 1995; Jenkins & Yakovleva, 2006). Cormier and Magnan (1999) bring up that "many firms are voluntarily increasing their level of environmental disclosure since there is a scarcity of alternative information sources" (p. 429). Such an increase supports the arguments regarding benefits of transparency.

Voluntary disclosing companies have further an advantage when it comes to complying with future environmental disclosing regulations. Binding rules do not exists yet which guide information sources and the disclosure process. This leads to individual approaches between companies, industries and countries. Jenkins and Yakovleva (2006) identified several roles of environmental disclosure which should be fulfilled within a company. These are assessing the environmental impacts of own activities, measuring the effectiveness of environmental programs and reporting on environmental responsibilities.

2.3. Environmental legitimacy

A key interrelation could be identified between environmental disclosure and environmental legitimacy of a company. In order to describe this relation, a definition of legitimacy is necessary. Dowling and Pfeffer (1975) wrote that legitimacy stands for the "congruence between the values associated with or implied by (organizational) activities and the norms of acceptable behavior in the larger social system" (p. 122). Another well-known definition was introduced by Suchman (1995) "legitimacy is a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values beliefs, and definitions" (p. 574).

These definitions mean that a company is legitimate if their actions fit into social acceptance. Environmental legitimacy focuses on environmental aspects of companies' actions, the reporting and their acceptance by the public. A high environmental legitimacy means that a company is very active in representing itself environmental friendly and this is accepted by the society.

In order to reach the public, companies make use of environmental disclosure. It is used as a tool to represent themselves and thereby become enabled to influence and even steer their social acceptance by the public and therefore their own legitimacy. Companies' actions for achieving legitimacy might influence social values and norms (Dowling & Pfeffer, 1975). This ability is a great advantage for a company to reach high legitimacy.

Further, companies often attempt "to achieve legitimacy by appearing to be doing the right things or not be involved in doing the wrong things" (Buhr, 1998, p. 165). Such an enabling and hiding of activities makes legitimacy to be a source of power (Bernstein, 2004). O'Donovan (2002) analyzed that "environmental disclosure decisions were made on the basis of presenting the corporation in a positive light" (p. 364). It can be said that companies might try to manipulate environmental illegitimacy through "releasing information about their own commitment to the environment and by voluntarily disclosing environmental liabilities" (Bansal & Clelland, 2004, p. 93).

These critics indicate that companies' disclosure is not always in line with their actual environmental performance due to the preservation of legitimacy (Buhr, 1998). If this is the case, the value of transparency decreases as it is not reliable and the society cannot trust on what is reported. And yet other companies "prefer low environmental legitimacy over the costs of improving environmental practices and performance (Bansal & Clelland, 2004, p. 100).

However, any environmental activities have to be accompanied by environmental disclosure. Legitimacy without disclosure is problematic as the public needs to receive information in order to accept it (O'Donovan, 2002). The content of disclosure depends on what the company wants to achieve, either gain, maintain or repair their legitimacy. In order to gain legitimacy, companies use a proactive and ex-ante approach. To maintain the status of legitimacy, the current disclosure practices should be continued. This means the more a company is pro-active and has a high legitimacy, the more initiative it needs to maintain these and to be one step ahead of public expectations. To repair the legitimacy reactive strategies are needed. This does often happen if a company has to deal with unforeseen events or a crisis (Suchman, 1995; O'Donovan, 2002). Environmental disclosure increases in response to negative environmental happenings or crises in order to keep legitimacy (Patten, 1992).

2.4. Environmental management

The environmental management department has the power to influence the company's legitimacy as it develops and executes environmental strategies to ensure economic growth and environmental protection (Darabaris, 2007). Another definition says that complex environmental problems and issues are addresses by a group of people through a process of planning and managing which builds up an environmental management. These people have to be creative to develop actions in order to deal or solve environmental problems for their company (Margerum, 2008). The majority of actions focus on the compliance to binding regulations implemented by the International Maritime Organization (IMO) or European Commission. Voluntary effort is limited as seafaring is identified as being still a traditional and conservative industry (Lorange, 2001). However, the environmental management department of a company has the responsibility for disclosing environmental information. Therefore, research needs to be done as well as the writing of publications (Jenkins & Yakovleva, 2006). In the process, companies can make use of the Global Reporting Initiative (GRI) which sets global guidelines for sustainable reporting (Global Reporting, 2016).

Integrated environmental management is characterized by addressing problems with a holistic approach (Margerum, 1999). Environmental resources are not seen as isolated but interacting. Corporate environmental management focuses on stakeholder collaboration and public participation is from high importance (Darabaris, 2007). Today, many companies use their environmental management to gain a competitive advantage over other market actors. Some companies use their

environmental management to control environmental problems while others are proactive and work towards a prevention of environmental problems (Daily & Huang, 2001).

Generally, environmental management should integrate sustainable principles in their daily business (Dovers, 2005). This means that actions should be taken which "meet the needs of the present without compromising the ability of future generations to meet their own needs" (Drexhage & Murphy, 2010, p. 7). Next to this, sustainability "convergence between the three pillars of economic development, social equity, and environmental protection" (Drexhage & Murphy, 2010, p. 2). The importance of sustainability is to focus and balance the triple bottom line consisting of People, the Planet and Profit (Triple-P) which should be realized and practiced by the environmental management within a company.

In business life, companies prefer the combination of economic growth and environmental protection as the priority. As the theory of ecological modernization explains, environmental effort is compatible as well as even supports economic growth over long term (Hovardas, 2016). Beside this win-win situation, social issues play a secondary role when it comes to sustainability in business (Littig & Griessler, 2005; Parra & Moulaert, 2010). Daily and Huang (2001) explain that a growth of global environmental concerns and the introduction of international environmental standards and regulations cause the integration of environmental strategies and programs in companies daily business. Additionally, during recent years, "consumer boycotts and strikes, dynamic preferences, and new customer requirements" affect firm strategies as well as its core values (Daily & Huang, 2001, p. 1540). The environmental management of a company has to deal with these issues and solve them in a sustainable way.

2.4.1. Certification

Based on greater focus on sustainable practices by environment management departments, different certificates and labels developed which make such efforts transparent. These "allow consumers to differentiate between more or less sustainable options" (Horne, 2009, p. 175). Different standards are set, which focus on impacts on the environment as well as strategies to address these (Darnall et al., 2008).

An informal and voluntary standard which certifies such sustainable practices, especially with regards to the environment, is the globally accredited standard for environmental management systems, called ISO 14001. This includes company's internal policies, assessments, plans and actions regarding the environment (ISO, 2015).

Another example is the Green Globe, which assesses the sustainability performance of cruise companies. It includes the company's sustainability management itself, but specifically social

economic matters, cultural heritage and environmental aspects (Green Globe, 2016). Through the fulfillment of specific standards on a voluntary basis, environmental management systems become certified by independent auditors, which makes such labels reliable (Darnall et al., 2008).

Next to these standards, certificates exist which indirectly address environmental management departments. Standards are set which represent the environmental status of cruise ship practices, which is influenced by the environmental management. An example is the Environmental Ship Index (ESI), which is certified to cruise ships. The ESI scores cruise vessels according to their individual emissions, which gives them discount on harbor dues (Environmental Ship Index, 2015).

Linked to certifications, systems became developed which rank cruise companies. Examples are Shipping Efficiency and the Cruise Ship Report Card. The Shipping Efficiency calculates the GHG emissions produced by cruise ships. Based on the outcome, ships are ranked according to A to G categories (fig. 2). The less GHG emissions a ship produces the closer it becomes ranked to A

Figure 2: Shipping Efficiency categories
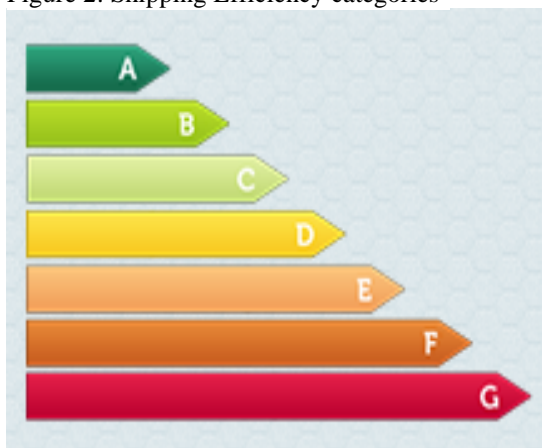
Source: Shipping Efficieny, 2016

(Ecolabel Index, 2016). However, the actual outcomes are not easily accessible to the public. An online account needs to be created first in order to get access to the data. Another ranking system is the Cruise Ship Report Card. It becomes published every year and can easily be accessed online. The system can be described as complementary to Shipping Efficiency, as it includes additional and broader variables for assessment: sewage treatment, air pollution reduction, water quality compliance and transparency (Friends of the Earth, 2016).

King et al. (2005) conclude that it is widely unknown why firms choose to become certified, how labels influence companies' behavior and how outsiders interpret the certification. The same authors proof that environmental management certifications lead to an improvement of companies' overall environmental performance, but not to a superior extent. Other researcher are more skeptical about the effectiveness of certificates on improving a company's environmental performance. Rondinelli and Vastag (2000) suggest that companies take the effort for receiving labels because of image building or public relation reasons.

2.5. Greenwashing

Labels are accepted as reliable as these become certified by external and independent auditors. Representations and information promoted by a company itself can be perceived as less trustable, as

these are not controlled. Therefore, companies can "falsely promote their environmental efforts or spend more resources to promote the organization as green than spent to engage in environmentally sound practices". Such actions represent the application of greenwashing (Becker-Olsen & Potucek, 2013, p. 1319). A company appears transparent but publishes false or illusive information regarding their environmental strategies, -goals, -motivations and -actions to the consumers.

Another way is that a company simulates to adopt new environmental practices which actually turns out to be motivated by cost savings instead of environmental protection (Becker-Olsen & Potucek, 2013). The increasing amount of green products on the market as well as public pressure, such from consumers, organizations and media, drives companies to practice greenwashing in order to stay competitive (Delmas & Cuerel Burbano, 2011).

Gueny et al. (2014) identified six most common ways of greenwashing called the "six sins of greenwashing". The first sin explains an attempt by using one environmental attribute which is actually linked to more environmental matters and therefore makes a product greener than it actually is. The next sin focuses on all information about environmental friendliness promoted by the company which cannot be proven by easily accessible evidences. The third type of greenwashing is providing vague information which are easily misinterpreted by the consumer. The next sin includes environmental information which are actually irrelevant for the consumer. The fifth way is to provide reliable environmental information on a product which actually distracts consumers from the overall impacts of the whole product category. The final sin includes incorrect environmental statements made by a company. Such information may be concerning environmental efforts or product impacts on the environment (Gueny et al., 2014).

Such deceptions through greenwashing can have negative influences on the company's image, sale and trust. Customers indicate to "stop buying the product after discovering the misleading" (Gueny et al., 2014, p. 14). A gap becomes created "between the desired image by companies and the actual consumer perception" (Gueny et al., 2014, p. 15). This might end up in a decrease or damage of companies' legitimacy. Nonetheless, the number of companies practicing such greenwashing is increasing. This leads to a greater number of people who become misled about the environmental performance of companies (Delmas & Cuerel Burbano, 2011). Finally, it ends up in less environmental friendly consumption and environmental damage. Based on these disadvantages, it can be said that greenwashing might have great negative effects on a company's satisfaction. Therefore, it can be recommended that "greenwashing is not beneficial" (Gueny et al., 2014, p. 43).

3. Findings

Firstly, this chapter provides the outcomes of the content analysis conducted on information provided by the three case cruise lines. Table 1 gives an overview of the most important findings. Further, based on the analysis with the help of coding schemes, the outcomes of the interviews conducted in the field are presented, intensified by quotes.

3.1. Environmental self-portrayal of cruise lines

This subchapter focuses on the self-representation by cruise companies with regards to environmental matters. Firstly, the three case companies AIDA, TUI and MSC are introduced. Following, a comparison of all three cruise lines elaborates differences and similarities of their representation and practices of environmental disclosure.

3.1.1. AIDA Cruises

The brand AIDA Cruises was founded in 1994 with signing the construction contract for the first cruise ship "AIDAcara" (former AIDA-Das Clubschiff). Over time, the red kissing lips became world-famous and are the branch mark of AIDA. Since 2003, the brand belongs to the british-american Carnival Corporation & plc and operates for the German cruise market.

Today, the company promotes itself as the market leader of the cruise industry in Germany. Based on this, they feel responsible to be a pioneer in environmental- and climate protection within the cruise industry. The protection of the environment is recognized as a top priority at AIDA. The long term goal is to have only zero-emission cruise ships operating. Therefore, the company applies the concept of Green Cruising (AIDA Cruises, 2015b). The basic idea of this concept is to make cruises green in order to protect the environment. Thereby, prioritized elements are a green design of cruise ships as well as green technologies applied and used on ships (Paloti, 2013). AIDA presents itself as being a holistic green brand. In almost every section on the website are connections to environmental protection efforts found. It is stated that the company is proud of their efforts with regards to the environment. AIDA recognized that environmental protection and economic success are not mutually exclusive, which drives them to be very active in developing innovations. It seems that AIDA understands that investing in environmental technologies results in economic savings, the company therefore uses this relations as an advantage in order to become a trendsetter.

To practice environmental protection, an integrative management system is used as an instrument. As an international standard, this system includes the environmental management system which is ISO 14001 certified since 2006. Environmental officers working on land and on board observe activities

and take actions to protect the environment. This means to save resources, decrease environmental damage and being transparent on this. An internal standard is the sustainability management department, which deals with aspects concerning sustainability, especially with the focus on environment. This is based on the understanding that appealing and clean oceans and air are the basis of attractiveness for cruises. In order to maintain these, AIDA targets innovation (AIDA Cruises, 2015b).

3.1.2. TUI Cruises

TUI Cruises is a rather young company founded in 2008 by TUI AG and Royal Caribbean Cruises ltd. As the company is quite young, the fleet is very small but the fleet grows very fast. It stands for a modern way of travelling on water and addresses the German cruise market. The recognition value and promotion slogan focuses on modern feel-good holidays. This is reached through offering high quality, full service, wellness and modern travelling.

It becomes clear that a difference in focus exists between AIDA and TUI. As TUI focuses more on comfort and wellness, AIDA's priority is innovation. Still, both share their online representation by using same colors and type of pictures. The company won many prizes on these sectors, but not a single environmental related award, which is different to AIDA. Same as AIDA, TUI implemented an integrative management system which applies ISO 14001 as well. The company has an environmental management department, which combines environment and sustainability with economic success. Just as AIDA, TUI employs environmental officers which are responsible to control the compliance to regulations (TUI Cruises, 2015).

3.1.3. Mediterranean Shipping Company Cruises

MSC Cruises was founded in 1988 based on long container shipping tradition and deep connection to the oceans. The company distinguishes itself through 300 years of family tradition. The recognition value of MSC is the Mediterranean way of life. Therefore, the priorities are authenticity, humanity and cordiality. Comparable to AIDA and TUI, also blue colors and beautiful clean looking pictures are used to support their values. Although the values differ among the three companies, all use the same kind of representation. MSC promotes itself as having the best market position in Europe, the Mediterranean Sea, South Africa and South America.

Further, the company states "we are environmentally aware, that's why our ships have innovative energy-saving and water recycling systems"[1]. Voluntarily, MSC takes the responsibility to protect the

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[1] „Wir sind umweltbewusst, deshalb haben unsere Schiffe innovative Energiesparende und Wasser Recycling Systeme"
 (MSC Kreuzfahrten, 2015)

oceans and advertises being the first cruise line which reduced emissions in port areas below binding values. Compared to AIDA and TUI, MSC's environmental management is also ISO 14001 certified, but does not publish an environmental report, nor any statistics and does not offer a sustainability section on their website (MSC Kreuzfahrten, 2015).

3.1.4. Comparison of AIDA, TUI and MSC

The following comparison outlines environmental matters of the three case companies more detailed by taking goal-, knowledge- and operational transparency into account (Hahn, 2002). The comparison is based on five dimensions which are the fleet, environmental reporting, environmental awards, environmental projects as well as social media platforms. These hard and soft disclosure items were chosen due to their importance for environmental performance and the available amount of information. At the end of this chapter, table 1 visualizes the most important findings.

3.1.4.1. Fleet

The fleets of AIDA, TUI and MSC differ widely with regards to size. MSC currently operates 12 ships, AIDA ten and TUI four cruise ships. While analyzing individual ships, it became obvious that environmental data is very limited at every cruise lines. TUI provides an overview of their fleet but environmental information and explanation for "Mein Schiff 1" and "Mein Schiff 2" are completely missing. About "Mein Schiff 3" and "Mein Schiff 4" are technologies mentioned but without further explanation. MSC provides the fewest and least informative environmental data about its fleet. Environmental information of four ships is lacking. The other eight ships are described very minimally by mentioning only the environmental technology used on board. Basic information is missing such as the kind of motor used and their electric capacity. AIDA provides environmental information on four out of ten ships. In contrast, these information are much more detailed as whole processes are described (AIDA Cruises, 2015b; TUI Cruises, 2015; MSC Kreuzfahrten, 2015).

All three cruise lines provide a minimum of environmental information about their fleet which is not fully informative. Therefore, it can be said that a lack of information exists as much more data could be provided. Environmental statements are not proven and descriptions are missing, especially on the webpage of TUI and MSC. It can be assumed that their fleets do not contain much green technology or processes which make cruises environmentally friendly. Otherwise, this would be mentioned, since even very basic characteristics of the cruise ships are usually described in great detail. Withholding negative or socially not acceptable information might be due to cruise companies wanting to avoid increasing surveillance and secure their vulnerabilities (Gadzheva, 2007; Mishkin, 2004).

Promotion

When it comes to the representation of the fleet, every cruise line is very positive in describing it. AIDA is overwhelmingly presenting its fleet. Statements like "We have the most clean cruise fleet ever"[2], "one of the most modern and environmental friendly fleet in the world"[3] and "the most energy-efficient cruise fleet of the world"[4] are used to describe the environmental status of the whole fleet (AIDA Cruises, 2015b). However, specific reasoning is missing which makes AIDA's fleet to the most environmental friendly one. Readers might easily interpret such descriptions as exaggeration through using words which cannot be upgraded anymore. TUI and MSC do not use such strong expressions to this extent. In addition, AIDA provides an overview of their innovations through visualization on their webpage, which again demonstrates their strong focus on technological innovations which are positively affecting the environment.

Figure 3: AIDA fleet innovations

Source: AIDA Cruises, 2015b

TUI calls its fleet the "feel-good fleet"[5]. This name does not directly include environmental aspects. Still, an attribute of the feel-good fleet is Clean Cruising. This includes the ships itself, as well as human activities on board. TUI promotes that "Mein Schiff 3" and "Mein Schiff 4" are currently the cruise ships with the world lowest emissions. The implementation of the newest technologies lead to a minimization of emissions (TUI Cruises, 2015). This statement conflicts with AIDA's statements as both promote their fleet as being the most clean cruise fleet ever. A reason might be that either both cruises line ships are equally clean or one cruise line uses it just for promotion.

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[2] „Wir haben die sauberste Kreuzfahrtflotte die es jemals gab" (AIDA Cruises, 2015b)
[3] "Eine der modernsten und umweltfreundlichsten Flotte der Welt" (AIDA Cruises, 2015b)
[4] "Die energieeffizienteste Flotte in der Welt" (AIDA Cruises, 2015b)
[5] "Wohlfühlflotte" (TUI Cruises, 2015)

Instead of just making statements like AIDA, TUI gives examples as evidence. It is stated that "Mein Schiff 4 is the world's cleanest cruise ship as it is the world-wide first ship which has a contract fixed energy-efficiency value"[6]. This would mean that "Mein Schiff 4" uses less energy than every cruise ship on the market. The major focus of promotion is on the equipment, service and atmosphere of modern feel-good holidays. This is visualized in figure 4, where the plusses stand for tourist attractions such as pools, restaurants and lounges (TUI Cruises, 2015). AIDA uses such a picture to show environmental innovations while TUI uses it to visualize attractions. This is another indicator for different values and how they are used for promotion.

Figure 4: Attractions on "Mein Schiff 4"

Source: TUI Cruises, 2015

Similar to TUI, MSC does not describe its fleet in relation to environment. MSC calls its fleet an "ultra-modern and gorgeous fleet"[7]. Again, the following image shows an overview of important tourist attractions grouped in categories like bars, entertainment, wellness and shops (MSC Kreuzfahrten, 2015). The categories used are similar to TUI's but differ from AIDA's, which indicates a lesser importance of environmental aspects.

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[6] „Mein Schiff 4 ist das sauberste Schiff der Welt da es weltweit das erste Schiff ist welches einen vertraglich festgelegten Energieeffizienz-Wert hat" (TUI Cruises, 2015)

[7] "Ultramoderne und prachtvolle Flotte" (MSC Kreuzfahrten, 2015)

Figure 5: Attractions on "MSC Preziosa"

TUI, MSC and AIDA use the same design of image but the content has an important difference. TUI and MSC visualize touristic attractions on board. Therefore, they have in common that the major focus of promotion is not driven by the environment. It is obvious that AIDA pays much more attention on environmental technologies and innovations. From a promotional point of view, AIDA values environmental aspects higher than TUI and MSC. Therefore, it can be assumed that AIDA has a higher interest in the environment as it is their major focus in promotion.

The mentioned statements and representations address the whole fleet of the cruise lines which includes every single ship. The next chapter will show that these statements do not fit to every ship within a fleet. Therefore, the promotion is generalizing every ship to the fleets' characteristics. Information about single ships is available, which might distract consumers from the missing environmental information of the remaining ships and the fleet as a whole.

Technologies

AIDA provides much information about their technologies as they support and initiate new innovations. An example is "AIDAstella" which was the first ship equipped with an innovative technology for treating ballast water. This will be an IMO standard in the future, but AIDA fulfills it today already (AIDA Cruises, 2015b). TUI mentions that their whole fleet contains ballast water treatment plants in order to protect the biodiversity (TUI Cruises, 2015). In this case, TUI is prepared for the new IMO standard as well.

It is identified that the major technological focus of the three cruise lines are emissions, which are they try to reduce. Different technologies are used to reach a reduction. AIDA seems to be outstanding as the main focus of AIDA is on the continuous reduction of emissions through innovation. It is promoted that AIDA reached a technological breakthrough with a filter system. New and old ships will be equipped with such unique filters, which filtrate 90 - 99 % of toxic compounds. A more detailed elaboration on which compounds will be filtered could not be found. However, this technological innovation is seen and promoted as a milestone for AIDA and for the cruise industry as a whole (AIDA Cruises, 2015b). No information about the implementation of such a filter could be found on TUI's and MSC's website.

A decrease in the use of fuel is an additional action taken by AIDA to reduce emissions. In 2013, the main figurehead was "each ship needs only three liter of fuel for 100 kilometer per person"[8]. Since 1990, the fuel consumption of AIDA ships was reduced by 70 %. This is supported by slow driving, an optimization of route planning and an improved ship design.

Specific attention got the new ship "AIDAprima", which started operating in spring 2016. The ship is promoted as setting new standards for environmental protection. Sustainability is one of three icons characterizing the ship which shows its importance on the ship. A nice and clean picture is undermined with the statement "Environmental protection is close to our heart"[9]. Compared to the presentation of the remaining ten ships, it seems that environmental matters have a much higher priority at the new ship generation. The main focus is on "innovative technologies which cause a maximum of efficiency"[10]. Examples are new filter systems to clean emissions, environmental friendly energy usage during berth, Dual-Fuel Motors, optimization of the outer design and the Mitsubishi Air Lubrication System (MALS-Technology) where air bubbles at the ship's keel reduce friction, which in turn saves fuel (AIDA Cruises, 2015b). It seems like many improvements on different sections on the ship led to an overall environmental improvement. Such a holistic improvement approach might help to reach an effective change for a better environment. These examples show that AIDA is actually investing in innovation and implements it to their ships. TUI and MSC do not mention any technologies like these on their website.

AIDA's ships built since 2007 are able to use electricity produced on land when they are in a harbor. This action reduces fuel consumption for energy production while landing time in a harbor. AIDA set the condition that land electricity needs to be produced by renewable energies. A worldwide unique advertised alternative to land based provided electricity is the Liquefied Natural Gas (LNG) Hybrid Barge located in Hamburg (Interview 10). Since 2015, the barge provides low emission onshore power produced by LNG to several ships of the AIDA fleet. The use of onshore power reduces emissions

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[8] "Jedes Schiff braucht nur drei Liter Treibstoff auf 100 Kilometer pro Person" (AIDA Cruises, 2015b)
[9] "Umweltschutz liegt uns am Herzen" (AIDA Cruises, 2015b)
[10] "Innovative Technologien führen zu einem Höchstmaß an Effizienz" (AIDA Cruises, 2015b)

drastically in port areas, which makes AIDA a pioneer in green cruising. It is explained that every new ship becomes equipped with the newest technologies (AIDA Cruises, 2015b).

TUI explains that since 2014, "Mein Schiff 3" drives with an exhausted gas plant on the seas, which is still under improvement. This example shows the effort and interest of TUI to take action to protect the environment. Further, TUI ships are able under limitation to use LNG as energy source. If the infrastructure is sufficient, TUI wants to finalize LNG technologies on the ships (TUI Cruises, 2015). It is obvious that TUI takes initiative to invest in environmental improvements, whereas AIDA seems to be the frontrunner when it comes to environmental technologies. MSC does not mention LNG and other environmental technologies at all.

In contrast to MSC's overall fleet representation, it is stated that the cruise ships are eco-friendly characterized by three factors: quality management, energy saving measures as well as sewage treatment and recycling. ISO certifications ensure specific qualitative standards. Energy saving actions are taken through the implementation of innovative technologies, for instance the optimization of air conditioning. Based on high environmental standards, MSC uses ultra-modern systems for sewage treatment and recycling. In 2006, "MSC Musica" was the first MSC ecological cruise ship. This is only described by having an energy-saving system, advanced water treatment and Clean Ship 2. No explanation regarding the meaning of Clean Ship 2 could be found on the website nor on the world wide web. "MSC Magnifica" (2010) is advertised as being equipped with modern technology and having an outstanding energy- and environmental balance. The list of environmental technology only contains an energy-saving system. Similar, "MSC Divina" (2012) is promoted as "setting new standards in eco-friendliness"[11] (MSC Kreuzfahrten, 2015). However, only advanced water treatment, energy-saving system and Clean Ship 2 are mentioned as technologies. These are not new technologies and no further explanation is given why or through what "MSC Divina" sets new standards.

Compared to TUI and especially AIDA, the description by MSC does not read as convincing. MSC's technologies are only very basic ones, which are common in the cruise industry nowadays. The same counts for the informal standards set by ISO certification, which is also awarded to AIDA and TUI. Calling such ships eco-ships sounds exaggerating.

Overall, it is questionable, if these technical arguments are sufficient to characterize their own fleet as one of the most modern, environmental friendly and energy-efficient fleet in the world. It is obvious that AIDA focuses much more on environmental matters and innovation and therefore might have the right to use such terms.

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[11] "Setzt neue Standards in Umweltfreundlichkeit" (MSC Kreuzfahrten, 2015)

Future development

All three cruise lines are planning to bring new ships to the market in the coming years. Every new ship is already promoted as being innovative and including the newest technologies. AIDA is the only cruise line who gives more detailed information. As the environmental director Monika Griefahn explains "we have the most energy-efficient ships in the world. With this new generation, we will again safe 20 % of energy"[12]. The future ship generation of AIDA, which will start operating in 2019, will sail only on LNG. Compared to heavy fuel oil, LNG approximately emits 20 % less CO_2, 85 % less NO_x and SO_x as well as PM are totally avoided (DNV GL, 2015). MSC announced to even implement four ships in the future fleet which sails on LNG only (MSC Kreuzfahrten, 2015). Also, Becker Marine Systems is integrated in steadily more LNG projects and expects further growth in the future (Interview 10).

Compared to such extensive description of environmental related developments of AIDA, TUI shortly mentions that in 2016 and 2017 "Mein Schiff 5" and "Mein Schiff 6" will start operating. Two additional ships are ordered for 2018 and 2019 which will replace "Mein Schiff 1" and "Mein Schiff 2" (TUI Cruises, 2015). Future developments clearly show that an important innovation will be LNG which AIDA and MSC gives a closer focus than TUI.

3.1.4.2. Environmental Report

AIDA publishes an annual sustainability report which is called "AIDA cares". Additionally, the sustainability section of the official webpage is displayed very prominently, indicating its importance. This section provides the "AIDA cares" document of 2015 which has in total 72 pages. Each year, the report includes four main components which are: the environment, employees, guests and successes (AIDA Cruises, 2015a). It stands out that each year, the chapter environment is the longest and most comprehensive one. This emphasizes the company's importance on environment.

TUI calls their annual report "Environmental report". The report of 2014 is available on their webpage which counts 34 pages and illustrates many processes with the use of pictures. Compared to AIDA, this report and the environmental section is much shorter and might be an indicator that environmental effort at TUI is much lower than at AIDA. Further, no environmental topics are mentioned throughout the webpage, except for the sustainability section. Different to AIDA, this section can only be found at the end of the webpage in a list of several headings. Again, this shows that environmental focus seems not to be a priority at TUI. Compared to AIDA, environmental matters have only a small focus. AIDA mentions environmental aspects and innovations on every page which demonstrates a high priority and

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[12] "Wir haben die energieeffizientesten Schiffe der Welt. Mit der neunen Schiffsgeneration werden wir nochmals 20 Prozent Energie sparen" (AIDA Cruises, 2015b)

importance. It seems that AIDA devotes more resources towards reaching a change in the cruise sector. TUI does not mention any interest in investing into innovations. Although, it is stated that "environmental management grows with the company"[13]. As TUI is a rather young company, environmental matters might become a higher priority in the future. Still, they emphasize on continuously improving their environmental performance (TUI Cruises GmbH, 2014).

As mentioned earlier, in contrast to AIDA and TUI, MSC does not publish any environmental report, although it is considered as the most important information source (Jenkins & Yakovleva, 2006). Such a lack of environmental disclosure indicates low importance and effort of MSC regarding the environment. Therefore, in the following paragraphs MSC is only included by their philosophy.

Philosophy

The report defines the company's philosophy as "sustainability is our responsibility"[14]. They want to save resources, protect the environment, support cultural and biological diversity and get involved with people on ship and on land. According to their vision, acting sustainable is the basis for being successful in the future. In order to reach environmental protection, especially for marine flora and -fauna, AIDA works closely with different scientists and invested 100 million euros in efficient and innovative technologies between 2013 and 2016. They state that resources are used effectively and circularly. Over the years, technical innovations became more important and to be the major focus. Technical standards, new investments and effort are highlighted in the reports (AIDA Cruises, 2015a).

TUI's philosophy is "an intact nature is the basis for long-term success. Our strategies are in line to protect and support it"[15] (TUI Cruises GmbH, 2014). By comparing AIDA's and TUI's philosophy, it is obvious that both are the same. Both companies see nature as the basis for their products and are aware of its importance for their business. This awareness drives their effort to protect the nature in order to have a beautiful nature for the future to offer cruises. When it comes to the strategies, both companies generally address the same, namely energy-efficiency, decrease emissions, waste management, resource- and climate protection, transparency, sustainable value chain and raise awareness. These are reached through fulfillment of national and international standards as well as voluntary effort above and beyond compliance (AIDA Cruises, 2015a; TUI Cruises GmbH, 2014).

Although MSC does not publish a report, the philosophy is available on their website. Their philosophy is "not the minutes are important in life, but the moments. Everyone should glory these to

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[13] "Umweltmanagement wächst mit dem Unternehmen" (TUI Cruises GmbH, 2014)
[14] "Nachhaltiges Handeln liegt in unserer Verantwortung" (AIDA Cruises, 2015a)
[15] "Eine intakte Natur ist die Grundlage für den langfristigen Erfolg. Unsere Umweltstrategie ist darauf ausgerichtet, sie zu bewahren und zu schützen" (TUI Cruises GmbH, 2014)

the fullest"[16] (MSC Kreuzfahrten, 2015). By this, MSC does not mention the environment in its philosophy and major priorities. It seems not to be that important as for TUI and especially as AIDA.

Emission reduction

It is obvious, that there is a strong focus on reducing emissions. Especially AIDA pays a lot of attention on reducing emissions through innovation. Not only the report, but also the website highlights the stimulation of environmental innovation. When analyzing TUI's channels, the attention towards emissions is not that strong. Still, TUI explains that the highest priority is the reduction of emissions. In particular, CO_2 emissions should be reduced through fuel savings by optimizing routes and speed (TUI Cruises GmbH, 2014). AIDA already integrated such improvements in order to save emissions.

TUI mentions, that they use only 0,1 % sulphur containing fuel while landing in a European harbor, as well as driving in the North Sea and Baltic Sea with only 1,0 % of sulphur (TUI Cruises GmbH, 2014). Also, AIDA highlights that since 2007 they voluntarily comply with the European harbor emission limit of maximum 0,1 % sulphur diesel fuel in order to reduce emissions (AIDA Cruises, 2015a). Neither AIDA nor TUI mention that these figures are actually a regulation that cruise lines have to comply with. Both TUI and AIDA are trying to polish their image by hiding binding regulations and presenting it as their own effort. The IMO introduced a 0,1 % sulphur fuel regulation for the North Sea and Baltic Sea in 2007 already (fig. 6). Such low sulphur areas are called Sulphur Emission Control Areas (SECA) (Gossett, 2012). This is not mentioned by neither AIDA nor TUI. Both companies try to use the regulation for their own advantage, as they have to comply with it anyway. AIDA even mentions they take those measures voluntarily, assuming that voluntary effort is more respectable than simply complying with regulation.

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[16] "Im Leben zählen nicht die Minuten, sondern die Momente. Und man sollte jeden dieser Momente in vollen Zügen auskosten" (MSC Kreuzfahrten, 2015)

Figure 6: Global SECA
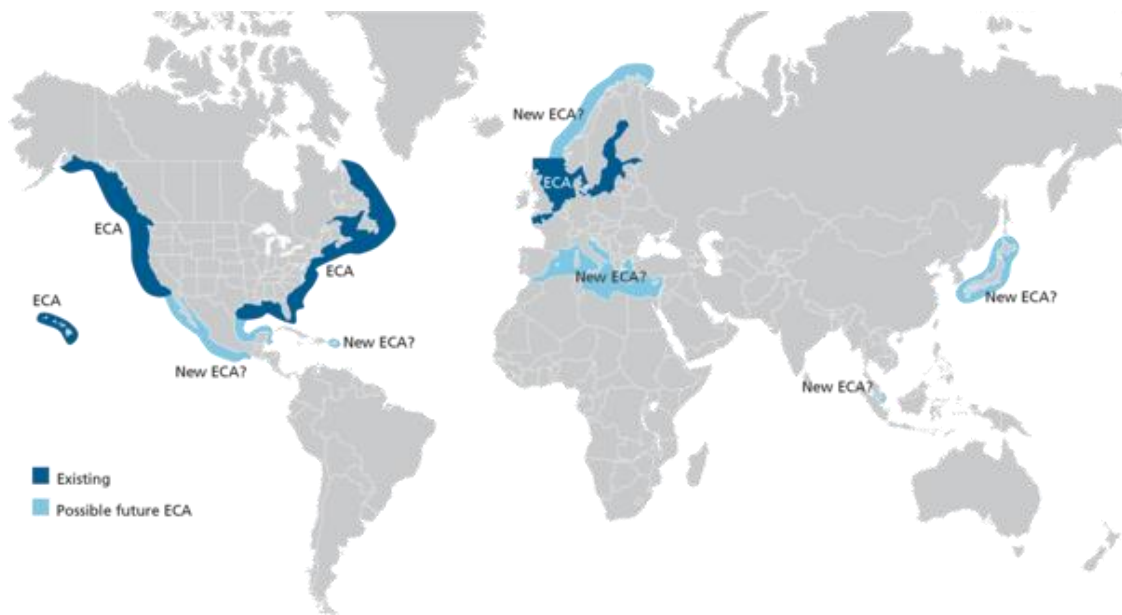
Land based activities

AIDA and TUI do not only pay attention to the ships themselves and their impacts, but also take processes on land into consideration. TUI states that "environmental protection is important for us, on board and on land"[17]. This includes the reduction of energy, waste, paper and water (TUI Cruises GmbH, 2014). AIDA uses environmental friendly cars and puts additional effort into saving water, energy and paper. AIDA states it proudness of their total separation of waste and that it is disposed on land only. Environmental officers control the disposal companies on land to make sure that high disposal standards are fulfilled (AIDA Cruises, 2015a). Therefore, both cruise lines take all their impacts into account and practice holistic efforts to protect the environment in a continuous way.

Cooperation

AIDA cooperates with actors on land like the Port of Hamburg, disposal companies and research institutes. Such cooperation improves the company's image and shows their effort for positive environmental change and development. An example is the Zero Discharge Policy, which makes sure that sewage becomes purified to reusable high quality water and that no waste goes overboard into the seawater. This technology becomes optimized by cooperating with a German testing institute for sewage technology. In addition, AIDA teaches employees, as well as guests about more environmentally friendly behavior (AIDA Cruises, 2015a).

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[17] "Umweltschutz ist wichtig für uns, an Bord sowie an Land" (TUI Cruises GmbH, 2014)

TUI cooperates with several foundations, environmental initiatives, the German research institute Helmholtz-Zentrum and different technological experts. Currently, TUI is not satisfied with exhaust filters and therefore cooperates with propulsion specialists to develop an exhaust gas treatment plant (TUI Cruises GmbH, 2014).

Both companies have contacts into diverse fields of industries and sciences. AIDA cooperates with other businesses in order to be innovative. TUI instead cooperates more with environmental entities and supports their initiatives. The cooperation concerning technological development can be valued as quite important as it supports to develop innovations, which is an important progress for both AIDA and TUI but also for the cruise industry as a whole.

Statistics

AIDA proves by statistics that cruise ships have the best balance of energy and are one of the most efficient transport modes available when it comes to CO_2 emissions. It can be assumed that AIDA uses such statements in their annual report in order to maintain their own environmental image. Furthermore, extensive sets of statistics and graphs are used by AIDA and TUI to visualize their own environmental efforts and successes. Overall, both companies provide statistical numbers regarding emissions, waste and water use (AIDA Cruises, 2015a; TUI Cruises GmbH, 2014).

At the end of the reports, a table summarizes AIDA's and TUI's environmental goals, which makes it easier and faster to read and understand. Readers get a quick overview of the goals and actions, how they want to reach those goals and by when. In AIDA's report of 2015, a total of six environmental goals were set and several actions how the company wants to reach them in the future (AIDA Cruises, 2015a). TUI's report includes 21 environmental goals. At first sight, the goals sound very ambitious, but actually address the same categories that AIDA targets, but only in more detail. TUI states that "the balance sheet of environmental targets is impressive"[18]. Further, "TUI has made great advances and achieved important targets"[19] in previous years (TUI Cruises GmbH, 2014). Compared to AIDA, TUI lacks information about how they want to reach the goals.

3.1.4.3. Environmental Awards

When comparing the awards won by cruise lines, it immediately becomes obvious that TUI has not won a prize yet with regards to environmental effort and -protection. Several awards are mentioned, but these are based on the quality of service and touristic attractions (TUI Cruises, 2015).

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[18] "Die Bilanz von Umweltzielen ist beeindruckend" (TUI Cruises GmbH, 2014)
[19] "TUI hat gute Fortschritte gemacht und wichtige Ziele erreicht" (TUI Cruises GmbH, 2014)

AIDA won three prizes which were directly linked to their environmental efforts. In 2013, AIDA won the Baltic Sea Clean Maritime award for the development of environmentally friendly infrastructure in the Baltic Sea. In 2014, AIDA got the B.A.U.M Environmental Award for successfully connecting the economy and ecology through bridging the environment with the business. The most recent award won is the Seatrade Environmental Initiative in September 2015. On the webpage, this award is not mentioned, but a tweet on Twitter presents a winner photo and statement. No information was given which environmental initiative it is about. Only indirectly linked to their environmental efforts, but worthy and interesting to mention are two awards. The Pegasus award represents the most trusted brands and AIDA won this prize for the fourth time in a row. In 2014, more than 8.000 German and Austrian consumers voted AIDA Cruises as the most trustworthy brand in the cruise tourism sector. In 2012, the company won the prize for innovation in the German tourism economy. It is not explained for what actions exactly the company won the award. Generally, it is stated that AIDA wants to be the trendsetting leader in the cruise sector (AIDA Cruises, 2015b). Based on previous analyses it can be assumed that environmental matters are taken into consideration by the prize for innovation.

Similar to AIDA, MSC won two prizes which directly award environmental actions. In 2008, MSC was the first cruise line which got awarded with the 6 Golden Pearls for unparalleled standards in environmental protection, health and safety. In 2013, MSC was awarded for eco-friendly concepts with the 7 Golden Pearls. The ships "MSC Preziosa", "MSC Divina" and "MSC Splendida" fulfill the criteria of an energy-efficient design. MSC promotes these as the most eco-friendly ships. The award contains the Clean Ship 2 classification for trendsetting air-, water- and waste treatment systems. Furthermore, it contains several ISO certifications (MSC Kreuzfahrten, 2015). Compared to AIDA, these prizes are related to internal actions of optimizing ships. Some actions are even recognized as basics in the cruise industry. AIDA's prizes focus on initiatives to support the environment which go beyond optimizing their own facilities.

Besides environmental awards, the cruise companies also participate in environmental certificates voluntarily. As mentioned earlier, all three cruise lines have an ISO certified environmental management. AIDA and TUI make use of the guidelines set by the GRI when reporting environmental information (AIDA Cruises, 2015a & TUI Cruises, 2015). With respect to the Green Globe, no information could be found regarding the case companies. Therefore, it can be expected that the Green Globe certificate is not awarded to either AIDA, TUI or MSC. The ESI certificate is awarded to the TUI cruise ship "Mein Schiff 4". Remarkably, all twelve ships of MSC's fleet are labelled with an ESI. AIDA does not have an ESI and therefore does not get discounts on harbor dues (Environmental Ship Index, 2015).

The ranking system Shipping Efficiency gives some transparency about the GHG emissions produced by the ships. The majority of vessels of AIDA, TUI as well as the total MSC fleet are not ranked, since

they have an electric propulsion system, which does not yet fit the assessment scheme. However, the "AIDAcara" is ranked into category D, which is a medium category. A reason for that might be that the ships was already built in 1996, when technological standards and innovations were lower than today. TUI's "Mein Schiff 1" and "Mein Schiff 2" are categorized in B. This means that both ships produce less GHG emissions compared to the "AIDAcara". Therefore, both ships operate cleaner, but they were also built more recently, in 2010 and 2011 (Shipping Efficiency, 2016).

The cruise report card 2016 includes only MSC, as it mainly focuses on the American cruise market. The cruise line is ranked on position 14 out of 17. In every category, the company scored quite low, which results in the lowest final grade (Friends of the Earth, 2016).

Generally, it can be said that voluntary certificates are not that prominent among the cruise industry. Neither an extensive participation can be identified, nor the promotion of participating in a label. On the contrary, environmental awards are much more promoted and focus on attention. Compared to their competitors, MSC's total list of awards and certifications is relatively short and the company ranks badly in the Shipping Efficiency. Nevertheless, it is the only cruise line which has an ESI for every cruise vessel. However, it seems quite exaggerating to state "based on our effort to protect marine ecosystems we received many awards and certification"[20]. On the webpage, neither their effort for ecosystem protection is explained nor did MSC win many awards.

3.1.4.4. Environmental Projects

Firstly, it has to be mentioned that MSC does not provide any information on its public channels concerning environmental projects. Therefore, it is concluded that MSC does not initiate or participate in any projects that support the protection of the environment.

TUI initiated and participates in two projects which are promoted on their sustainability section. The projects are directly influencing their actions and therefore have direct positive effects on the environment. An example is the Green & Fair label for land excursions, which represents socially and environmentally friendly trips. The label is handed out only if they fulfill TUI's criteria proven by local agencies. In addition, the information leaflet includes rules for environmentally friendly behavior and motivates guests to participate through "small steps, huge effects"[21]. This means everyone can help to protect our nature by following some basic rules.

Another program is the TUI species protector (fig. 7). This paper is part of the Biodiversity in Good Company initiative where TUI is a member. It consists of a flyer which provides information for

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[20] "Aufgrund unserer Bemühungen zum Schutz der marinen Ökosysteme haben wir zahlreiche Auszeichnungen und Zertifikate erhalten" (MSC Kreuzfahrten, 2015)
[21] "Kleine Schritte, große Wirkung" (TUI Cruises GmbH, 2014)

guests about species-appropriate souvenirs. It should motivate guests and increase their awareness for helping to protect the travel destinations (TUI Cruises GmbH, 2014). By this, TUI wants to give their guests the opportunity to protect the environment of their holiday destinations, support the local handcraft industry and to protect the biodiversity. These projects are guest related, which shows TUI's effort to raise the environmental awareness of their customers, but also to include them actively in environmental protection.

Figure 7: Example of the TUI species protector

Compared to TUI, AIDA offers one out of two projects which are directed for their guests. Another important difference is that AIDA's projects are initiated to indirectly influence the environment. In 2013, AIDA established the association AIDA Friends of the oceans. This association is charitable and operates independently from the brand AIDA. The goal is to support national and international projects for sea protection. The main focus is on water pollution by plastics.

In 2015, AIDA and the organization Atmosfair initiated a CO_2 cruise compensation project which is unique in Germany. By this, AIDA wants to set new standards and be the frontrunner of compensate cruises. The project focuses on guests who voluntarily want to compensate their CO_2 emissions produced during the cruise trip. Until 2020, the goal is to motivate 20 % of guests to compensate their emissions and to support voluntary protection of the environment. The money is spent on local projects in India (AIDA Cruises, 2015a). It can be assumed that this project concept is motivated by the airline sector, where such compensation programs already exist. Still, it is a good initiative to increase public attention for environmental protection. On the other hand, destinations which are visited during a cruise and directly suffer from impacts are not addressed and do not get an advantage out of these programs.

AIDA's projects are presented in the annual report, but could not be found on their website or social media channels. This means that no promotion is done on their own channels, probably to avoid attention for self-induced drawbacks. Contrarily, TUI's webpage offers easily accessible project information.

3.1.4.5. Social Media Platforms

Generally, the environmental representation of every case company on social media platforms is very limited. Nonetheless, all three companies have the usage of color blue in common. The color blue is typical for water, which is an essential element for cruise, but can also stand for harmony, satisfaction and silence (Stadler, 2015). This atmosphere of the online representation is supported by paradisiac looking pictures, which contain clean beaches or their respective ships. Such a layout makes cruise lines much more attractive for consumers.

Facebook

MSC counts most the likes, about 3.6 million likes on Facebook which is much more than AIDA (almost 930.000 likes) and TUI (about 120.000 likes) have. An environmental entry could only be found on AIDA's Facebook page. An article was written in 2014 about the opening of the worldwide first LNG Hybrid Barge, which received a rather modest response from the community it should appeal to. Compared to previous articles about routes and holiday pictures, this is only a minimum level of attraction. It is obvious that only a small reader community spend attention to this article. Only five comments were given which were positive about the effort of AIDA to cooperate and to develop a technology for environmental protection. TUI's platform contains only videos and pictures regarding events and touristic highlights on the ship. MSC only provides pictures and videos of destinations on Facebook.

When it comes to public comments under entries, TUI counts less people who liked and commented the content. All comments can be identified as positive. No negative comment or discussion could be found. This might be reasoned that no one criticized TUI or the comments become deleted. Similar, comments and likes of entries by MSC are low as well. But differently, several negative related comments could be identified. Below a picture of the island Lanzarote and a MSC ship, Marlies Heer (2014) stated "related to environment not representable, too large!"[22]. Andreas Leischer (2014) wrote that „cruises are the most environmentally unfriendly mode of travelling. Wake up cruise tourists, wake up cruise industry"[23]. H.R. Sauer (2014) requests "Air polluter, think of"[24] this situation. Among

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[22] "Umweltmäßig nicht vertretbar, viel zu groß!" (Marlies Heer, 2014)
[23] "Kreuzfahrten sind die umweltunfreundlichste Art zu reisen. Wacht auf Kreuzfahrer, wach auf Kreuzfahrtindustrie"
(Andreas Leischer, 2014)
[24] "Luftverpester denkt nach" (H.R. Sauer, 2014)

others, these people state their critical opinion towards the cruise industry. MSC did not respond to these negative comments. AIDA also got a few statements of individuals as a comment under a picture who criticize the environmental status, especially the amount of emissions. Statements such as "sitting in toxic exhaust on a mass transport mode"[25], "our poor environment"[26] and "how many emissions are produced…nobody talks about this"[27] and "cruise ships produce immense amount of dirt"[28].

As the only cruise company, AIDA accepts and responds to critical comments, for example that environmental protection is an important element of the company's philosophy and that AIDA puts effort in new technologies and that continuous improvement can be recognized. In addition, they refer to their sustainability section on their webpage for further information. Differently to TUI and MSC, AIDA receives some compliments of being environmentally friendly and to invest much effort in continuous improvement. Still, some people are critically towards AIDA and MSC, especially when it comes to emissions.

Twitter

On Twitter, AIDA counts most followers, almost 13.000 people. These are many more compared to TUI (almost 4.000 follower) and MSC (about 3.000 followers). MSC does not tweet any statements concerning the environment, Twitter is used for commercial purposes only. The same is true for TUI, except for a few links which are connected to "Mein Schiff.tv" videos on YouTube. The majority of tweets relate to touristic attractions and events organized by TUI. AIDA uses Twitter to publish internal events instead of travel related information. Short statements and photos are used to share awards, new implemented technologies, retrofitting of operating ships and events around environmental matters, such as the opening of the LNG Hybrid Barge.

YouTube

YouTube is identified as the only online platform where all three companies publish environmental information. AIDA provides most videos, for example about their environmental vision, the "AIDA cares" report 2015, their environmental effort, innovations of current and future ship generations and the new MALS-Technology.

MSC provides two videos regarding environmental matters and efforts. One video deals with drinking- and pool water treatment on board. Another video was found about the waste management on board. Waste separation and recycling processes are explained. The moderator mentions twice that

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[25] " Auf einem Massenverkehrsmittel in giftigen Abgasen sitzen" (Sieghart-Winfried Ashelm, 2013)
[26] "Unsere arme Umwelt" (Anke Schmerling-Dolle, 2014)
[27] "Wie viele Emissionen produziert werden…Niemand spricht darüber" (Dietmar Schnell, 2014)
[28] "Kreuzfahrtschiffe produzieren gewaltigen Dreck" (Dietmar Schnell, 2014)

environmental protection has the highest priority at MSC. This statement or indication could not be found on the official website.

On TUI's channel, only one video was found produced by "Mein Schiff.tv", which explains that environmental protection is an important topic and has high priority at TUI. Through analyzing their website and social media channels, it seems that feel-good holidays are more important. The video explains basic actions how the environment is protected by TUI. Examples are environmental friendly light bulbs and putting towels on the ground if guests want to have new ones. These are basic actions which are even used in hotels on land. This means that TUI does not have many special techniques and technologies for environmental protection.

Compared, AIDA pays much more attention to new technological innovation and changes. Further, it is explained that waste water is cleaned on board and is directed into the seawater. Through this, the demand for external fresh water does not decrease. This is a difference to AIDA, which makes sure that waste water becomes reusable water. This leads to a decrease in demand for external fresh water which means savings of our water resources.

3.1.4.6. Highlights

The comparison of AIDA, TUI and MSC demonstrates several differences and similarities of their environmental disclosure. The highlights are illustrated in the following table.

Table 1: Comparison overview of AIDA, TUI and MSC

Indicators	AIDA	TUI	MSC
Fleet	extensive environmental information is provided about 4 out of 10 ships	Basic environmental information is provided about 2 out of 4 ships	Basic environmental information is provided about 8 out of 12 ships
Publish environmental report	Yes	Yes	No
Sustainability section on website	Yes	Yes	No
Philosophy	Fully linked to environment	Fully linked to environment	Not linked to the environment
Voluntary environmental effort	Yes	Yes	No
Land-based activities	Yes	Yes	No
Environmental statistics	Yes	Yes	No
Environmental awards	Three	None	Two
Environmental projects	Two	Two	None

Social media platforms	• Few environmental entries on Facebook, Twitter and YouTube • Public critics available	• One environmental entry only on YouTube • No critics available	• Two entries only on YouTube • Public critics available
Represented environmental focus	High	Middle	Low

It is obvious that MSC has the least disclosure as important channels to share environmental information are missing. Further, existing channels are only used to a minimum extent when sharing environmental practices. This could be reasoned by a low environmental awareness which in turn results in few environmental practices leading to minimal information disclosure (Clarkson et al., 2008; Barth et al., 1997; Al-Tuwaijri et al., 2004). A supporting argument would be that the company is ranked quite bad by the Cruise Ship Report Card. Described as a pitfall of transparency, disclosure about lacking environmental performance might threaten the company's surveillance and increase its vulnerability (Gadzheva, 2007). If this would be the case, it is advisable for MSC to keep their low level of transparency instead of risking negative impacts (Mishkin, 2004).

On the other hand, it is the only case cruise line which participates in the ESI, a certificate awarded to every one of their cruise ships. Also, the company won two prizes for environmental effort, although no evidence for the effort could be found. Other reasons for low transparency could be that MSC wants to keep their privacy or has a different selling point. A clear statement on the actual reason cannot be made as the cruise line itself did not want to comment on this study. Such a behavior could also be an indication for low environmental performance, as the company otherwise could have reacted if positive statement could be made.

The column of TUI shows greater environmental disclosure compared to MSC (table 1). The company expresses environmental awareness and effort but since the company is still quite young, it needs more time for development. This might also be a reason why TUI did not win an environmental award yet. It is assumed, if the company continues their current strategies, their environmental disclosure will increase and their performance will improve.

AIDA is evaluated as having the highest environmental focus and the most environmental information disclosed, which leads to the assumption of high environmental performance (Clarkson et al., 2008; Barth et al., 1997; Al-Tuwaijri et al., 2004). Table 1 illustrates that AIDA discloses most environmental related information and presents great effort in environmental improvement. So far, it is supposed that all environmental information provided are correct. Based on that, it can be assumed that AIDA has a better environmental performance compared to TUI and MSC. As the three companies are among the market leaders in the north-west region of Europe, it can be said that AIDA is a good environmental publisher and performer within that region and should thus be recognized as a role model.

3.2. Expert emission information disclosure

In order to get an insight into the practical reality of the status and environmental disclosure of cruise companies, it was chosen to include external views. As cruise companies were not willing to participate in this research, it is of additional value to include outside perspectives. Therefore, several experts of different professionalization were interviewed (table 2). Cruise companies give attention to their emissions, scientists are critical about cruise emissions and experts also have a major focus on emissions production by cruise lines. Therefore, this chapter focuses on opinions of interviewed actors about the emission production of cruise ships, interlinked matters and companies' openness about it.

3.2.1. The chicken and the egg

It was stated by interviewees that technological developments in the cruise industry often work according to the chicken and the egg principle (Interview 1; Interview 4). An example mentioned is the development of LNG in the cruise sector. The extension of this innovation would help to enormously decrease hazardous emissions. In this case, the chicken is represented by the cruise line AIDA, as it is the only cruise line at the moment which is able to operate a ship with LNG in the port of Hamburg. Further descriptions to LNG are already given in chapter 3.1.4.1. Fleet – Technologies. The egg of the example is represented by ports and their infrastructure.

The principle is applied as especially AIDA demands for a greater infrastructure of LNG in ports in order to implement more ships using LNG. On the other hand are ports which do not want to provide the infrastructure as long as only a minimum of ships are able to use LNG facilities. The investment in LNG infrastructure is too high for only a few ships. Further, Ms. Prins-Droog (Port of Amsterdam) explained that cruise lines "prefer investing money in scrubbers instead of in LNG". This information drives ports to greater uncertainty of LNG developments in the future wherefore they say "if more cruise ships would use it that would be much easier for us" (Interview 1). Therefore, ports demand cruise lines firstly to further increase the amount of ships which are able to use the technology.

Such a lack of consensus might lead to a blockade of further development of the LNG technology and therefore the decrease of emissions. However, among others, AIDA starts operating "AIDAprima" next year which is able to use LNG (Interview 1). In this regard, Mr. Latif (climate scientist) told that he and Atmosfair "hope for the snowball effect"[29]. If cruise lines start using LNG more extensively, others might follow. According to the principle, cruise lines take the initiative and extent the use of LNG whereupon ports have to follow. Still, a few ships are not enough to persuade ports as these do not visit the same harbors which increases the range of ports which have to adapt.

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[29] "Ich hoffe ja immer auf den Schneeball Effekt" (Interview 2)

3.2.2. Emission compensation programs

In aviation, emission compensation is commonly known. Programs where customers can compensate their emissions produced during a cruise holiday are quite rare and unknown on the global market. Atmosfair, a German climate protection organization, which focuses on travelling, is one of the few examples. The organization promotes "through CO_2 compensation we are actively working for climate protection"[30]. Mr. Latif adds that "people have the right to know how many emissions they produce during the holiday and to compensate these"[31]. On the other hand, Atmosfair also stresses that compensation does not solve climate problems as it does not address the emission sources. Mr. Völker (Atmosfair) summarized: "avoid before reduce before compensate"[32]. Atmosfair started cruise compensation in 2011 in collaboration with Hapag-Lloyd. Since 2015, also AIDA works together with the organization and offers a CO_2 compensation possibility. So far, AIDA is the only world leading cruise line which offers the possibility to its customers for compensating their emissions (Atmosfair, 2015; Interview 2).

Another example is the compensation program developed by a cooperation of Zeetours Cruises, Climate Neutral Group and Wageningen University. In 2015, Zeetours Cruises, which is a Dutch tour operator specialized in cruises, launched the calculator for the cruise passengers' carbon footprint in order to compensate tons CO_2 emitted per person. The company offers its clients to compensate their emissions directly whilst booking a cruise holiday. The aim of this compensation is to be transparent to customers with regards to their holiday emission production (Zeetours Cruises, 2015).

In addition, Zeetours Cruises sells such cruises as Green Cruise products which is actually a misuse of the term as passengers do not directly buy a green cruise. The point source on board of the cruise ships is not addressed which in turn does not lower emissions produced during a cruise. The cruise stays as polluting as it is and passengers pay an extra amount of money for it. This is a practical example of greenwashing cruises by cruise operators, as compensation does not make the cruise itself greener.

However, compensation programs help to create public awareness with regards to air pollution of cruise ships and further supports the improvement of the overall air quality. The amount of emissions produced during a cruise trip becomes reduced at other parts in the world. The money spend to compensate is invested in climate protection projects at different locations worldwide. Therefore, compensation improves the overall air quality as such projects decrease emissions at local levels.

In any case, the existence of such compensation programs shows that cruise ships produce too many harmful emissions and that actions are needed for change. AIDA's involvement demonstrates that they

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[30] "Mit Hilfe von Kompensation betreiben wir aktiven Klimaschutz" (Atmosfair, 2015)
[31] "Leute haben das Recht zu sehen was sie produzieren und diese kompensieren zu können" (Interview 2)
[32] "Vermeiden vor reduzieren vor kompensieren" (Interview 3)

are aware of their emissions. The company offers an additional possibility in addition to technological innovations and the continuous improvement of practices on board and on land, which is to deal with the emissions through placing part of the responsibility on the passengers. Furthermore, compensation programs help to publicize emission facts and to increase the transparency of them. The advertisements around compensation programs get attention by the public and increase the general awareness with regards to CO_2 emissions and cruises.

Both compensation programs have the limitation of being based on calculations. Emission calculations give an indication of emission production compared to real time measurements on board. Exact emission numbers measured directly on board of cruise ships would make compensation programs more reliable and trustable. An improvement might be the regulation becoming effective in 2018 by the European Commission, which obliges large ships to monitor, report and verify their CO_2 emissions from 2018 onwards (European Commission, 2016).

Moreover, it has to be noted that the programs focus only on CO_2 compensation. Other important emissions such as SO_x, NO_x and PM are neglected, although these affect both the environment and people's health. This nonobservance also means that passengers do not compensate all their produced emissions, but only CO_2. Further, the target group addressed by the compensation programs can be criticized as the actual polluters, the cruise lines, are not directly affected and pressured to become cleaner. In addition, it can be criticized that cruise lines are not willing to provide exact emission and ship related data on which specific calculations could be based on (Interview 2). This unwillingness clearly demonstrates a lack of transparency regarding emissions in the cruise sector. Therefore, the calculation is based on research as well as assumptions, which makes the compensation program inaccurate. Such a behavior leads to the presumption that the company has information to hide. Clear information disclosure by cruise lines about emissions would help to optimize the calculations and to give customers a clear overview about their actual emissions.

3.2.3. Environmental effort as an image

Many interviewees agree on a positive relationship between the environmental effort of cruise lines and their image. It is suggested that environmental effort supports building a positive image which helps attracting customers. Ms. Prins-Droog stated that sustainable practices are a "sort of license for cruise lines to operate". Further, she explained that such a behavior can be a "unique selling point for cruise lines". This might be an opportunity to differentiate from competitors. Mr. Becker (Becker Marine Systems) highlighted AIDA as the company that actively uses it as unique selling point. In addition, Mr. Lebmeier (Hamburg Port Authority) identified an interrelation between environmental

effort and image as he said that "image is a driver"[33]. Therefore, by getting a positive environmental image, cruise lines behave and operate environmentally conscious. An underlying driver might be, unless being a conventional industry, the ability to pass costs to the passengers and their willingness to pay more money for a cleaner holiday (Interview 10).

Both, Mr. Latif and Mr. Völker confirm that the cooperation with Atmosfair was established by AIDA in order to improve their own image. The professor highlighted that "we (Atmosfair) do not depend on AIDA, AIDA depends on us"[34]. As it is a worldwide known organization for climate protection, AIDA uses the name of Atmosfair to push their image. Mr. Völker confirmed that "if a company works with Atmosfair then because of the reputation of Atmosfair"[35]. Therefore, companies use the known values of the organization for their own publicity reasons. Based on the extent to which Atmosfair's name may be used, AIDA takes the advantage for promotion in order to increase their own image. Mr. Latif explained "if they (AIDA) do not fulfill the agreements, we will step out"[36]. Therefore, AIDA has to demonstrate high environmental effort with regards to emissions to stay in a cooperation with Atmosfair and to further benefit from the advantages.

As mentioned in chapters earlier, some cruise lines report their environmental effort with closer focus on the emissions. This was also recognized by the research participants. Ms. Prins-Droog told "a lot of cruise lines are publishing their last year's sustainability reports and I think that is a good way to state what is the pollution and their emissions". Others were positive about reporting as well, having content with a least some degree of transparency. When it comes to the accuracy of the published emissions numbers, the interviewees agreed on "I hope it is correct" and "I have to trust that it is correct". Mr. Latif added "I do not think that it is normal to falsify. The loss of image would be too high"[37]. Mr. Diesener (NABU) continued "there are ISO standards where they have to comply with and which are certified"[38]. Still, "the cruise industry is not obliged to report" which leads to the fact that the "reporting rate is unfortunately quite low" (Interview 7). However, if cruise companies want to get a positive environmental image, they have to publish data in order to get recognized and accepted by the society. Thus, based on the high interest of cruise lines in a green image, they have to disclose environmental information.

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[33] "Das Image ist ein Treiber" (Interview 8)
[34] "Wir brauchen AIDA nicht, die brauchen uns" (Interview 2)
[35] "Wenn ein Unternehmen mit Atmosfair zusammen arbeitet dann arbeitet es ja wegen dem guten Namen von Atmosfair zusammen" (Interview 3)
[36] "Wenn die sich nicht daran halten, dann steigen wir einfach wieder aus" (Interview 2)
[37] "Ich glaube nicht dass es gang und gebe ist dass man da fälscht. Da wäre der Image Verlust zu groß" (Interview 2)
[38] "Es gibt ISO Normen die eingehalten werden müssen. Die theoretisch auch zertifiziert sein müssen" (Interview 5)

3.2.4. AIDA – Green Cruising

In spite of critics, the interviewees agree with each other that AIDA is currently the most green and clean cruise company on the market. They are very active in protecting the environment. Mr. Völker expressed that AIDA is actually the only cruise line which is actively committed to environmental protection. Mr. Carstensen (DNV GL) stated some cruise lines put more and others less effort into their environmental performance. He identifies AIDA as a cruise line which does much more than required by norms. Further, he sees AIDA as green driven by a consequent attitude. The same interviewee criticizes the lack of such a consequence in the actions of other cruise lines.

Further, their prominent sustainability manager Ms. Griefahn is stated as a major driving force of AIDA's development towards sustainability. Mr. Latif calls her an "icon of ecological movement"[39]. In comparison, other cruise lines employ an environmental manager and these are not as prominent as Ms. Griefahn. Mr. Carstensen even stated that AIDA is a green cruise line. This statement is reasoned with AIDA putting in the most effort in new technologies and other processes in order to become more environmentally friendly. Ms. Prins-Droog thinks that there is a market available for such green cruises and that passengers exist who only want to go on a green cruise. Mr. Carstensen adds that especially "elderly generations who take a cruise in the Baltic Sea with many passage days show high interest"[40].

While talking about environmental practices, especially cruising with low emissions, AIDA often turned out to be a major positive example. Especially, their high voluntary effort is honored by experts. Another example, next to compensation and LNG technology development, is that AIDA voluntarily asked Det Norske Veritas and Germanischer Lloyd (DNV GL), a classification society, to control their emissions projects (Interview 4). This makes AIDA's green projects more reliable because an external authority is controlling the practices.

3.2.5. The dirty secret of cruise lines

As outlined earlier, every participant relies on the correctness of the statistics and figures published by cruise lines. When it comes to the type of information which is published, the interviewees are more critical. The Naturschutzbund Deutschland (NABU), the largest German society for nature conservation, blames cruise lines that "extensive and precise data on emissions is not available"[41] (Naturschutzbund Deutschland, 2015). This criticism is in line with Ms. Prins-Droog, who stated that cruise lines lack transparency when it comes to exact emission and ship related data, as described in

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[39] "Ikone der Umweltbewegung" (Interview 2)
[40] "Aber Ostsee, bisschen älteres Semester, mehr Zeit und mehr See Tage, dann war das Interesse grösser" (Interview 4)
[41] "Umfangreiche, konkrete Emissionsdaten bezogen auf die Kreuzfahrtschifffahrt sind bisher nicht verfügbar" (Naturschutzbund Deutschland, 2015)

chapter 3.2.2. Emission compensation programs. Cruise lines have this data available, but do not share it (Interview 9). The companies also report "but it is not that transparent of course" (Interview 9). The important aspect of emissions is missing. Mr. Eijgelaar (researcher) explained that therefore "outsiders have to make a model to estimate emissions". In addition, Mr. Diesener told that NABU wanted to take emission measurements on board of an AIDA ship but "so far they refused the possibility"[42]. Many cruise companies refuse access to their emission statistics.

These examples are important indicators for lacking and missing transparency in the cruise industry when it comes to data concerning emissions. Hiding data and not allowing scientists to take measurements can be interpreted as negative behavior. Such an attitude indicates that data is hidden due to negative practices regarding emissions.

NABU continues to criticize how the cruise companies' outward image relates to what is actually happening. "Cruise ships show their crystal clean and white outside, but behind the scenes it is totally different"[43] (Naturschutzbund Deutschland, 2015). Figure 8 and 9 illustrate cruise lines' practices from the view of cruise lines themselves, here as example MSC, and NABU.

Figure 8: Representation of MSC cruise ship by MSC

Source: MSC Kreuzfahrten, 2015

Figure 9: Representation of MSC cruise ships by NABU

Source: Naturschutzbund Deutschland, 2015

MSC, but also AIDA and TUI use nice colors and clean looking ships for promotion (fig. 8). NABU uses a picture to visualize their view on cruise ships' performance as they produce a lot of emissions and black carbon. NABU reasons the negative background by the use of heavy oil as well as insufficient implementation of nitrogen oxide catalyzer and particulate filter on board. Due to image reasons, cruise lines avoid to use images such as figure 9.

Obviously, both depictions represent extremes, wherefore it can be assumed that both representations are exaggerations and modifications in order to reach one's purpose. Cruise companies want to be represented as clean as possible in order to be attractive to customers, while it is without controversy that today's cruise ships produce emissions and emit smoke. As an environmental organization, NABU wants to raise awareness for environmental problems. Demonstrating current practices in such a dramatic manner strengthens their arguments in the public eye. However, as two extremes are used, it can be expected that the actual cruise ship performance with regards to emissions lies somewhere between both figures.

Since 2009, NABU strongly focuses on the cruise industry as they launched a campaign in Europe called "It reeks – making cruise ships clean"[44] (Interview 5). This title includes a double meaning, as cruise ships smell bad due to emissions and that the NABU is fed up by the cruise ships' performance. Therefore, the campaign developed an environmental prize which is named "Dino of the year". The Dino is awarded annually and represents negative environmental practices. In 2011, TUI as well as AIDA got the Dino. These two cruise lines were chosen due to their bad records and low environmental effort (Interview 5). Mr. Diesener emphasizes that "within the whole industry nothing was happening"[45] with regards to the environment, especially emissions.

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[44] "Mir stinkt's – Kreuzfahrtschiffe sauber machen" (Interview 5)
[45] "Das ist eine Branche, da passiert nichts" (Interview 5)

Today, "many things positively changed in the cruise industry"[46] (Interview 5). Mr. Diesener compliments "especially TUI and AIDA changed many actions positively"[47]. It can be assumed that the positive changes in environmental effort of TUI and AIDA were motivated by the Dino. Mr. Diesener stated that "it is a direct consequence of the award"[48] and gives examples of "a new environmental director, a new environmental strategy and more publicity"[49]. The annual cruise ranking of 2015 based on emissions shows that AIDA and TUI ships are the most environmentally friendly ones on the cruise market and have the lowest emission rates (Naturschutzbund Deutschland, 2015).

If these positive environmental effort developments are driven by the Dino, it can be said that the prize has an enormous positive effect on the environmental effort and performance of cruise lines. AIDA as well as TUI are not transparent with regards to the Dino. Both companies publish a list of prizes they have won, but fail to mention the Dino. This means that both companies are hiding the award from the public on purpose. It can be assumed that this lack of transparency is driven by possible negative effects for their image.

3.2.6. The hidden solutions

According to the majority of interviewees, it is already possible to change the emission status of cruise ships dramatically. Everything needed is already available on the market: innovative and sustainable technologies. Many participants agreed that technologies, which would improve the environmental status of cruise ships, are available. Mr. Latif said "everything is possible, all solutions and technologies are already available"[50]. From a technological point of view it is possible to drive a cruise ship with gas, a battery system or even a fuel cell (Interview 2; Interview 5). The implementation of such propulsion technologies would lead to an enormous reduction of emissions produced by cruise ships.

That these technologies are not implemented yet is discussed and criticized by some participants. Ms. Rougier (Cruise Gate Hamburg) mentioned that "the technologies are too expensive"[51]. It is identified that the major problem and the main reason of it is the European economic system. It is a conventional industry and works according to the principles of capitalism, which means short term profit and the maximization of said profit. Currently, the economic system does not incentivize emission reduction. Mr. Latif demonstrates this theory by the example of fuel cells. The technique is available and therefore it is possible to drive a ship over the oceans in a clean way. But, "this technique will only be

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[46] "Es ist eine Branche wo eine ganze Menge passiert ist in letzter Zeit" (Interview 5)
[47] "Gerade von AIDA sowohl auch TUI wirklich einige Sachen umgesetzt worden sind" (Interview 5)
[48] "Aus direkter Folge aus dem was wir veranstaltet haben" (Interview 5)
[49] "Neue Umweltchefin, beide Unternehmen haben eine neue Strategie, beide Unternehmen gehen viel mehr an die Öffentlichkeit" (Interview 5)
[50] "Alles ist möglich. Die Lösungen und Technologien sind schon alle da" (Interview 2)
[51] "Ja aber das ist doch ganz klar. Das ist einfach viel zu teuer" (Interview 6)

profitable by 2025 because by then, renewable energies will be much more affordable than conventional energies"[52]. Also Mr. Diesener criticized that today "fuel is too cheap and the low price is a significant problem for alternatives"[53]. According to the participant, the fuel price is kept low in a conscious way. For instance heavy oil is exempted from taxes, which is an injustice (Interview 5). Mr. Carstensen agrees and simplifies "it is a matter of price, the technology is not the problem"[54]. Mr. Latif calls such profit making without taking environmental losses and environmental responsibility into account "Ignorance".

These examples make clear that the economic situation and processes hinder the implementation of sustainable solutions which would positively influence the emission status of cruise ship. Further, the reasons of lacking voluntary environmental effort across the industry become clear. Laws and regulations are much more effective as these are binding and obligatory for all companies. However, Mr. Becker stresses that these regulations are not comprehensive and strict which could be improved by the IMO.

3.2.7. Future expectations

The participants of this research agree that the cruise sector is a growing market and has a lot of potential for the future. When it comes to future trends in the cruise sector, the interviewees see different possibilities of development. The cruise lines themselves do not provide any information about future plans. Generally, Mr. Völker and Mr. Eijgelaar are optimistic towards the German cruise industry when it comes to environmental performance. They register more awareness for the environment and nature in general in the German society, especially when compared to the American society. Further, emission compensation programs work much better in the middle of Europe, which Mr. Völker reasoned by the sense of quality. Europeans have a much better sense for product quality and they are willing to pay more money for a high-quality product (Interview 3).

The cooperation for compensating emissions by Atmosfair and AIDA is quite young but "it is assumed that the first cruise passengers already compensate"[55] (Interview 3). The cooperation is a long term project which promises successful results. The indication leads to the assumption that a compensation system for cruises works, passengers compensate and the environment is affected positively. No other cruise lines, except for AIDA and Hapag-Lloyd, started such a compensation project. Mr. Völker explained that "the main goal is to reach a compensation participation of 20 % of

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[52] "Aber es wird gesagt diese Technik ist erst ab 2025 profitabel. Weil dann wahrscheinlich die konventionellen Energien so teuer sind, dass dann die erneuerbaren Energien konkurrenzlos billig sind" (Interview 2)

[53] "Der Treibstoff ist zu billig. Der Treibstoffpreis ist ein großes Problem für viele Alternativen" (Interview 5)

[54] "Das ist am Ende da einfach eine Preisfrage...dann ist das von der Technologie her kein Problem" (Interview 4)

[55] "Aber es wird angenommen, es kompensieren die ersten Kunden" (Interview 3)

total cruise passengers by 2020"[56]. In order to fulfill this goal, materials for information and advertisement need to be extended. An example are brochures, which are distributed on board to inform passengers. Together, Atmosfair and AIDA work towards progress and the successful development of emission compensation programs.

The port of Amsterdam explained that "a trend is that cruise lines are more and more aware of sustainability". Cruise lines try to brand their ships as well as tourist activities as greener. This is a trend which will continue in the future. Mr. Völker agrees by stating that "there are many ecological damages and therefore, the total package of cruises will be created environmental friendlier"[57]. This is an important aspect in order to reach long-term changes and positive effects for future generations. Ms. Prins-Droog gave the examples of excursions, as AIDA is using "green busses to bring passengers to attractions or to offer bike trips to discover a city".

When it comes to greening ships, cleaner forms of fuel are mentioned as a future focus. Again, emissions are the major point of focus in future times. Currently, AIDA is a good example for this (Interview 1; Interview 3; Interview 5). Although Mr. Diesener stressed that AIDA makes huge promises and announcements when it comes to environmental technologies. An example is the promise of implementing filters and a catalyzer to every AIDA ship of their fleet, yet "By today, nothing happened"[58] shows the lacking extent of results. But as Mr. Latif said "AIDA is not green, but greener than the others"[59]. It can be assumed that AIDA will defend its position in order to be the green cruise line of the future.

Mr. Carstensen explained that cruise lines are planning to extent the control and steering of their ships to control stations on land. Driven by safety reasons, cruise companies want to know where exactly the ships are. Further, the sum of collected data will also help to monitor and to further improve the energy efficiency, which will in turn improve the emissions output. This trend will be implemented by AIDA and the interviewee forecasts that other companies will take this approach as well (Interview 4).

Whether or not LNG will be the future alternative fuel is debatable. As mentioned earlier, the development depends on several factors. The actions and steps taken by ports and cruise lines are important. Furthermore, the development of energy prices might influence the demand for LNG as well. However, it can be said that LNG could be an alternative to fuel and be an environmentally friendly solution for decreasing emissions.

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[56] "Das Ober Ziel und das ist ja nun auch wichtig ist 20 Prozent bis 2020" (Interview 3)
[57] "Aber da gibt es auch andere Umweltbelastungen, also das Gesamtpaket umweltfreundlicher machen" (Interview 3)
[58] "Das haben die auch noch immer nicht gemacht" (Interview 5)
[59] "Die sind vielleicht nicht grün in dem Sinne, aber grüner als die meisten anderen" (Interview 2)

3.3. Roles of external actors

Based on the data collection, several actor groups were be identified, which have influences over the transparency of cruise companies. Each group of people, organizations or institutions is identified of playing a specific role and having different instruments available to affect the environmental disclosure of cruise lines.

3.3.1. Governmental institutions

The IMO as international authority, the European government as well as National governments are identified as important actors to directly and indirectly influence the transparency in the cruise sector. These institutions have the power to implement binding regulations in order to have direct effects on transparency. The European Commission itself criticized the "limits of a voluntary approach" for transparency (European Commission, 2014, p. 2). The institution recognized that binding regulations are necessary in order to reach more transparency, as the current voluntary approach failed. Mr. Eijgelaar supports this view, as the cruise industry will only change their behavior when legislation exists (Interview 9).

On the other hand, governmental authorities can implement environmental regulations which might indirectly affect transparency positively. Environmental policies are limited, such as the SECA. The participants evaluated the emission area as an important tool in the cruise sector for environmental- and social protection, due to its binding characteristics. If a company becomes greener due to binding regulations, it could be that they also become more open about such positive information.

The NABU especially focused on comparing regulations and policies on land and on water. They identified huge differences in attention, amount and rigor. Mr. Diesener explained that many regulations exist on land when it comes to catalyzer, use of fuel and emissions. On sea, these are not limited or influenced at all. He strongly criticizes the lack of regulations on water, binding for the entire shipping industry. The European Federation for Transport and Environment (2016) particularly criticizes the IMO of lacking binding standards and clear CO_2-reduction goals. The general secretary of the IMO reasons this by "such actions would hinder the industry" (European Federation for Transport and Environment, 2016, p. 1). Among others, this is very much influenced by the resistance of the cruise lobby. The federation states that rigorous binding regulations have an enormous positive impact on the environmental and social status. Therefore, it is assumed that policies will also help to improve the environmental status of cruise ships. The NABU expert asks to increase the amount of regulations on water as well as their rigor status to raise awareness of this issue. The organization sees the power of the National and the European parliaments as well as the IMO as a major factor to influence the environmental friendliness of cruise ships.

Therefore, binding policies are a very important tool, which should be used more extensively in the cruise sector in order to reach a healthy environmental and social status. Especially the emissions should be limited, which means that cruise lines have to report about their emissions. This will also be a huge progress for transparency in the cruise sector.

3.3.2. Society

During field work the actor group "public society", especially the cruise passengers are identified as an essential driver with regards to transparency. Important to notice is that generally the awareness increased among the society about environmental pollution and the necessity of its protection (examples in chapter 3.1.4.5. Social Media Platforms). A diversity of industries have to deal with this development and the public interest in companies' practices. This results in customers demand and pressure for information. As cruise companies try to fulfill the demand to get accepted and become legitimate they adapt their disclosure behavior. Such a great influence and power level of consumers might help to put pressure on cruise lines and to steer the amount and kind of information. This pressure might not only lead to greater information provisioning, but also to an improvement of actual practices. It is identified that people on land as well as on board of a ship are interested and critically ask about cruise practices. Ms. Prins-Droog thinks that cruise passengers have to be aware of their impacts, especially when visiting a city center. This means, that consumers should not only be interested in cruise practices and the impacts, but it is also their responsibility as a cruise tourist to be informed.

Mr. Latif is the only interviewee who raised a critical point of view on the influences of the society on transparency. He agrees that in theory more people became aware of the environment, which also shows a demand for transparency. However, from a practical viewpoint, the interviewee did not recognize a difference in actions yet. According to him, the majority of people is still too focused on their economic status. People are willing to protect the environment, but when actions are actually needed, people are not willing as it is mostly related to spending a higher amount of money. This in turn reflects our value of nature. Such kind of public behavior might indicate that the transparency of the available information is not clear or critical enough in order to force them to take actions. If information transports a clear message that actions are needed, the public might be motivated to rank it over their economic considerations.

3.3.3. NGOs and scientists

Non-governmental organizations and scientists are identified as being the controller of cruise companies. They scrutinize actions and practices by cruise ships critically. Thereby, often incorrect or

insufficient information disclosure is detected and complementing data becomes provided by the organisation. Therefore, this actor group increases the availability of information and its correctness. Through detecting drawbacks of transparency or practices, organizations put pressure on companies towards disclosing correct data and improving their practices.

The ship naming ceremony of the "AIDAprima" in Hamburg in spring 2016 is a suitable recent example worth mentioning. AIDA promotes the new ship as being the most environmental friendly cruise vessel operating (AIDA Cruises, 2015b). During the event, NABU measured emissions close to the river Elbe. The outcomes indicated very high emission concentrations after the ship entered the city. Therefore, the organization strongly criticises the promotion strategy of AIDA. The NABU findings indicate that AIDA's information disclosure is incorrect and the promises of emission reductions were not fulfilled. AIDA rejected the criticism and explained that "AIDAprima" has the most modern technologies on board. However, the technological innovations do not have a license yet, wherefore they are not allowed to be used (Schleswig-Holsteinischer Zeitungsverlag, 2016). This recent example makes clear that information disclosure of cruise companies is not always reliable and organizations need to request additional data.

Further, AIDA's cooperation partner Atmosfair criticises that not enough information about the compensation program is provided for the passengers. Mr. Voelker criticises that the future goal of 20 % of passenger compensating by 2020 will not be reached by today's scale of advertisement. A greater diversity and extent of information materials is needed to reach a larger amount of customers. This means that not only the transparency itself is important, but also the distribution and promotion of the disclosed information. Atmosfair as a partner is acting as a consultant and advises appropriate ways of advertisement to distribute the information and become more transparent.

3.3.4. Ports

The port of Amsterdam works with cruise lines since they provide their necessary port facilities. Today, especially AIDA is a major partner since they cooperate with regards to new technologies, for example LNG. The port spends much effort and resources investigating the adaptation of LNG in order to offer appropriate facilities. Ms. Prins-Droog criticized that AIDA provides only limited information about expectations and the process to the port. In order to be able to take individual and situation related decisions, the port contacted the cruise line to get information concerning restrictions and bunkering of LNG. Correct and detailed information gives the port a "comprehensive understanding of a cruise company's development, performance, position and impact of its activity" (European Commission, 2014, p. 1). Until today, the port did not receive an answer, which slows down the whole LNG investigating process.

This example shows that the Port of Amsterdam demands information, but does not receive it. Ports are expecting sufficient information in order to be able to take decisions and implement facilities. Such a lack of transparency decelerates processes and might negatively influence the cooperation. This example makes clear that ports have non-relevant influences on cruise companies' information disclosure, as these do not react. This might be reasoned by the independence of cruise lines to ports. Many ports exist within a geographical area, which makes it easier for cruise companies to choose a different harbour for port calls.

NABU explained that ports are important as they have the right to independently implement local regulations. Mr. Becker stated that "ports continuously get more responsibility to act"[60]. Mr. Diesener gave the example of the ESI initiated by Northern European ports. It is aimed to be a transparent instrument to stimulate greener cruise tourism. Ms. Prins-Droog explained that the greener a cruise ship is, the more points it gets and the more discount the cruise line will have on harbor dues. The ESI mainly focuses on emissions which cruise lines have to report to the organization.

Important to notice is that the more ports take their own actions, the higher becomes the possibility that cruise lines feel pressure for change. However, reporting emission numbers does not address ports. Cruise companies have to report to the ESI in order to receive their points. The ESI database is open for participating ports. Therefore, the ESI itself creates a greater transparency with regards to emissions and not the cruise lines themselves.

3.3.5. Media

Based on the definition, the media cannot be categorized as an actor. However, media in general acts every day around the globe and therefore becomes an important player when it comes to transparency. Different kinds of media, but especially social media platforms are important instruments of information disclosure. They create a tool for cruise companies to provide information to the public. On the other hand, media channels are also open for criticism provided by other actors which might negatively affect cruise lines. On social media platforms, discussions and an exchange of views takes place, which might bring up new issues or solutions. Information is spread quickly around the globe and reaches many people.

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[60] "Häfen werden immer mehr in die Pflicht genommen" (Interview 10)

4. Discussion

This chapter is based on the theoretical background and the findings from data collection. Relations between both, such as overlaps and differences, are discussed. Based on that, knowledge could be identified, which amplifies existing scientific concepts and theories. Furthermore, limitations of the thesis are outlined.

4.1. Indications of greenwashing

It is researched that all three case companies publish environmental information, although they do so to varying extent (table 1). With the help of field research, it is important to note that the information disclosed by the three case cruise companies allows for the application of several ways of greenwashing (Gueny et al., 2014). This indicates that the case companies practice greenwashing to some extent. It can be assumed that the motivation for greenwashing is driven by gaining legitimacy, but also differentiate themselves from their competitors and improve their own image.

The second sin means that disclosed information cannot be proven by available evidence, which seems to be applicable to all three case cruise lines. Of major interest are emissions produced by cruise ships. Cruise companies promote being green and emitting fewer emissions than their competitors. However, no information is disclosed regarding exact emissions in tons. This means that no evidence is accessible. Also NGOs do not have such data available, wherefore some take the responsibility to procure evidence, often under obstructive conditions. It is organizations forbidden by every cruise line to take measurements on board in order to control the emission output (Interview 5). Therefore, NGOs make use of measurements close to water ways, which enables them to give at least an indication of the emission quantity produced by a cruise ship.

The fifth sin can be applied again to AIDA, TUI and MSC equally. It means that environmental information is provided on a specific product, which distracts consumers from the impacts of the whole product category. The cruise lines provide information on several ships of their total fleet. The most environmentally friendly and special ships are accentuated, especially the most recently built. This might distract consumers from the environmental impacts of ships which are not presented. They notice the newest ones as these get the most attention and apply their perception to the whole fleet, although older ships of the fleet have a lower technical standard than newer ones. Information disclosed becomes generalized and replicated to the fleet which is a type of greenwashing. It is debatable if this sin is practiced on purpose by cruise lines or if it depends on the society's background influencing the interpretation of information. However, in order to prevent this sin used unintentionally, cruise companies should provide information to all ships and highlight the differences between the ship generations.

The sixth sin of incorrect environmental statements can be demonstrated by the event of the ship naming ceremony of "AIDAprima" and AIDA's justification after the event regarding the allegation by NABU (chapter 3.3.3. NGOs and scientists). The ship was advertised as the most environmentally friendly ship, which was refuted by NABU. Only after the accusation and public pressure, AIDA admitted that the technologies on board, which decrease the impacts, are not switched on. If the NABU had not uncovered this drawback, the public would believe that "AIDAprima" is a clean cruise ship, although it is just as polluting as other cruise ships. An additional indication of practicing the sixth sin of greenwashing is the incorrect visual representation of cruise ships. This does apply to cruise lines as well as to environmental organizations (fig. 8 & 9). However, it is commonly known that cruise ships constantly produce some smoke. Even official cruise codes of conduct advise cruise tourists not to wear white clothes on deck, as these become dirty due to the emissions.

4.2. Don't tell strategy

In addition to Gueny et al. (2014), this study identified a seventh sin of greenwashing. According to the analysis, it seems that cruise lines purposely hide environmental information from the public. Such information do not have to be evidences, which is an essential difference to the "sin of no proof". Rather, practices and general environmental data which might be interpreted negatively are not disclosed, which creates a more positive image and legitimacy than cruise lines might deserve. By focusing on positive elements only, the public becomes distracted from negative practices. Cruise companies consciously create a lack of transparency in order to avoid negative effects for themselves. Such a "Don't tell strategy" helps cruise lines to eliminate pitfalls of transparency through conscious cozenage of consumers. Withholding negative environmental information from the public, just for keeping a positive product image, is an important aspect of greenwashing.

This aspect was not taken into consideration by Gueny et al. (2014), although their concept of six sins appears to be quite complete since several sins seem to be applicable to the three case cruise lines. Further, the sins are well used by organizations as they are generalizable to different kinds of businesses (UL, 2013). Therefore, it is possible that the "Don't tell strategy" is also practiced by a variety of product providers.

A different study, conducted by Spaargaren and van Koppen (2009), identified such a strategy as consumer-silent when it comes to the actual performance. However, the authors did not connect it to greenwashing. They evaluated consumer-silent and greenwashing as separate deficient ways of consumer oriented information provisioning. Based on the arguments mentioned, this research identifies the "Don't tell strategy" as a method of practicing greenwashing.

4.3. Greenwashing – legitimacy correlation

In addition to the probability of greenwashed information disclosure by cruise lines, an interrelation with the concept of legitimacy was identified. This relationship is represented in the following figure.

Figure 10: Greenwashing - legitimacy correlation
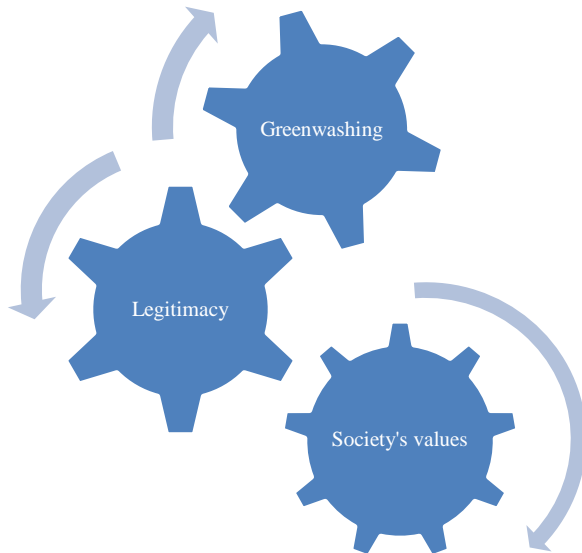
The basis of the relation are the values and expectations of the society. These need to be fulfilled in order to become accepted and legitimate. If the company's practices are not sufficient to become legitimate, greenwashing of information is a tool to reach public acceptance. In that case, legitimacy is created by incorrect information and does not represent the actual practices. Next to the goal of becoming legitimate and gaining a social license to operate, companies also improve their image and obtain competitive advantage over other cruise lines.

This cycle driven by greenwashing can only be reversed, without experiencing negative publicity and illegitimacy, by the improvement of the actual practices towards greener options. By using greener technologies and services, a more reliable information disclosure can be applied. Thereby, companies can gain legitimacy in an honest way. As Spaargaren and van Koppen (2009) already quoted: "the key element of the green consumption project is honesty" (p. 98). Cruise companies should be able to guarantee green cruises when advertising them, which in turn would result in the ability to disclose information honestly.

4.4. Manipulation: environmental performance and -disclosure interrelation

Basically, this study agrees with the study outcome of Clarkson et al. (2008), Barth et al. (1997) and Al-Tuwaijri et al. (2004). Among others, these authors identified a strong positive interrelation between environmental disclosure and environmental performance. This research also identified such a relationship among the case companies. Nevertheless, an exemption has to be made when it comes to greenwashing information. The practice of greenwashing data is identified as a factor which manipulates the interrelation. Thereby, the interrelation becomes mutually independent as the variables do not influence each other anymore. Therefore, the interrelation is not always automatically applicable. Further, it is difficult to identify such a manipulation, as greenwashing is practiced in a concealed way.

Based on the findings, it can be said that a high level of environmental disclosure does not automatically mean an appropriate status of environmental performance of cruise companies. A basic environmental status can be expected if environmental information is provided. However, making use of greenwashing enables companies to provide data to a larger extent and with a deeper focus, which does not correspond with the ships actual environmental performance. The probability that information is falsified exists, as identified in earlier chapters. Companies make use of exaggerations, generalizations and specific narratives to represent themselves greener. Such statements do not always represent the actual environmental status of their operating ships. Therefore, a company can also make use of a great extent of information disclosure while performing low. Greenwashing information enables new combinations of environmental disclosure and environmental performance relationships.

Furthermore, important to notice is, the less transparent a cruise line is, the lower is the rate of greenwashed data. If companies disclose less information it can be expected that this is truthful and credible. Among the case companies, varying degrees of greenwashed data is expected. Due to several interviewees, TUI and MSC focus on being transparent with regards to actual practices and efforts, instead of representing more than they actually are. Exaggerations and generalizations are avoided, such as "being the best" or "on global scale". In comparison, AIDA uses such terms frequently, while also applying greenwashing techniques. Therefore, the better and wider a company wants to present itself to the public, the higher the chance that data provided is not fully reliable.

4.5. Drivers of environmental disclosure

Two drivers for environmental disclosure were defined by Cormier & Magnan (1999): the pressure from external actors and economic elements. This research agrees, that external actors play the essential role for pushing environmental transparency. Economic views are not taken into account by this study, wherefore its influences are neglected. However, based on the data collection and analysis, the group of external actors could be differentiated and ranked, as illustrated in the following figure.

Figure 11: Transparency drivers
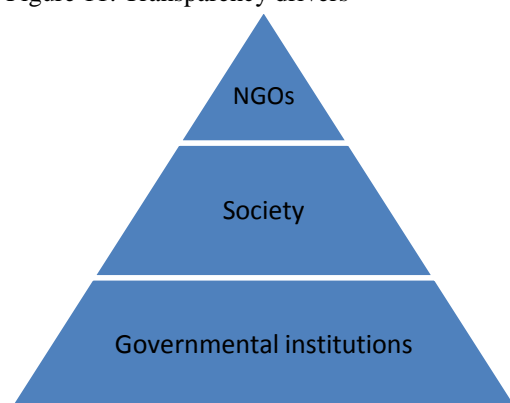
The basic drivers for environmental disclosure are governmental authorities, such as the IMO or the European Commissions. Binding regulations and laws are the only method to repeal the lack of voluntary action taking. Cruise companies need to be forced in order to become more environmentally friendly and transparent about their practices. Governmental institutions have the required power to force cruise companies towards environmental transparency, as for example with the expected obligation to report from December 2016 onwards. Further, they are able to

set widely accepted standards and rules for transparency, which can lead to a decrease or avoidance of fake products and greenwashed information (Spaargaren & van Koppen, 2009). Regulating the information disclosed might prevent greenwashing practices, which would lead to a better environmental performance of cruise lines in order to become legitimate. This means, legitimacy can be reached only with actual environmentally friendly practices and effort.

In addition to governmental authorities, the society is an important actor group, as it has a high density which makes it powerful. The society sets values which need to be fulfilled by cruise companies in order to be legitimate. These values might be changing over a long period of time, thus cruise companies need to be aware of them and adapt their practices in order to stay legitimate. Furthermore, the society also has to accept the practices through their access to information. The demand for information drives cruise lines to be transparent in order to increase the probability of becoming widely accepted and legitimate.

NGOs are ranked on top of the pyramid, as these are identified as having a control function over the information disclosure. Specialized organizations have the needed knowledge to detect greenwashed data. Such revelations might have negative effects on a company's legitimacy, as it is not accepted anymore by the society. Therefore, organizations influence the whole pyramid downwards, and beyond that the cruise companies' environmental disclosure practices and their legitimacy.

4.6. Thesis limitations

After conducting the research, several weaknesses were identified which create limitations to this thesis. One could argue that the data collection was constraint to one country. It might be the case that actors in other countries frame the concept of transparency differently or have other point of views when it comes to transparency in the cruise sector. However, Germany is the major market for cruises in Europe and therefore much promotion is practiced in this area. Due to relatively high public environmental concern and awareness, people demand environmental openness from companies (Freeman & Mussey, 1991; Krikser & Matzdorf, 2015). This makes Germany an interesting and valuable market to research.

Furthermore, the research deals with three cruise lines as cases, thus limiting to the scope of this thesis. Therefore, it might be that the results are not completely applicable to all cruise lines over the world. Depending on national laws, but also on public expectations with regards to environmental disclosure, it might be that other cruise lines practice more or less environmental transparency. Regulations in particular have strong impacts on the correctness and trustiness of the data disclosed. This might differ between countries and continents.

Generally, the subject of transparency was identified as a hot topic among stakeholders of the cruise industry. Several stayed distanced and well deliberated regarding information to add to this study. Many people and businesses avoid the topic of transparency, which makes the access to data and finally the research conduction difficult. To some extent, this avoidance creates curiosity and motivates to research underlying matters around the issue. It will be difficult to avoid this limitation in future projects. In order to overcome this problem, it is advisable to conduct research on a hot topic over a long period of time. Having more time available creates a patient attitude, which supports gaining the trust of interviewees and allows them to become more open about the subject at hand. This might help to change potential participants' minds.

Additionally, it can be argued that the attitude of reservation towards transparency created a limitation with regards to the quantity of interviews. Participant groups of data collection are missing, such as shipyards, Zeetours Cruises and cruise lines themselves. It might be the case that such participants would have been valuable for this study in order to gain more opinions and views with regards to transparency. However, this situation is not evaluated as a limitation to this research. It confirms that companies try to get around the topic. This strongly indicates that information is hidden or incorrect, otherwise, organizations could have talked or commented on this study. Such a behaviour strengthens the arguments of greenwashed data and "Don't tell strategies". Therefore, in this case, the unwillingness of participating is evaluated as adding value to the study instead of being a limitation. Many important actors are included in this research who provided in-depth information which have a sufficient level of accuracy and reliability to base the outcomes on.

5. Conclusion

This thesis researched findings with regards to the processes of transparency. These are important insights for the public in order to be aware of the content of information disclosed and to not rely on all available data disclosed as these are not always fully trustable. Based on desk research, it can be said that cruise lines are transparent with regards to their efforts taken with regards to environmental protection. Companies practice transparency to varying degrees. In contrast to critics, some companies disclose more environmental information and use numerous channels to spread the data, such as AIDA, while others disclose less and use fewer channels, for instance TUI and MSC.

When combining desk research with field research, an important outcome is that the degree of transparency does not automatically reflect the environmental status of cruise practices. Environmental disclosure and environmental performance can differ, which is caused by greenwashed data. Exaggerations and generalizations are used to present the company in a better way than they actually operate. This enables cruise companies to gain legitimacy without improving their performance correspondingly.

Further, the more comprehensive information is disclosed by a cruise company, the higher is the probability of unreliability through greenwashed information. It is assumed that cruise companies use greenwashing as a tool to enhance their transparency in order to gain legitimacy, increase competitive advantages, improve the image or strengthen selling points. As response to the proponents of greater transparency, it can be said that more information disclosed is not always better. Modified information does not fulfill the public's right to know. It depends on the correctness and quality of the content of data made public rather than its quantity.

Among all three companies, negative information disclosed by themselves could not be identified. Moreover, negative practices cannot be researched further or measured precisely, since cruise companies prohibit such research, e.g. emission measurements on board. In the future, changes can be brought by governmental authorities, the society and NGOs. The most important element is to make regulations and standards for transparency stricter. However, the whole value chain of the cruise industry has the responsibility to prevent greenwashing and to motivate cruise companies to become greener and therefore gain legitimacy in an honest way.

Based on these outcomes, recommendations for future research can be given that can be elaborated in more detail. A study focusing on the economic drivers for environmental disclosure of cruise companies is an option. As cruise lines operate globally and with different profiles of passengers, it might be possible that their drivers differ from the ones of other businesses. This research focused on actors who push transparency in the cruise sector, while economic factors were not taken into account. Such a study would identify the most important economic factors for environmental disclosure. In

addition, it would complete the current knowledge of the overall most important drivers for environmental transparency. The combination of the most influential actors as well as economic factors can stimulate and steer environmental transparency in the most effective way.

Further, it would be interesting to get a deeper insight into compensation programs for cruise holidays. It is a new tool used by cruise operators to give passengers the possibility to compensate their share of emissions. A study concerning the effects on emission reduction projects would give an insight into the effectiveness of these programs. Further, an evaluation of emission compensation programs would be important in order to gauge their effects, identify options for improvement but also allows an insight into ways in which these programs might have positive influences on the cruise industry.

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7. Appendix

7.1. List of interviewees

For this research, a total of 10 in-depth interviews were conducted. The following table provides an overview of each interviewee's name, the authority representing and the date the interview was conducted.

Table 2: List of interviewees

Interviewee	Authority	Interview conducted	Interview number
Alma Prins-Droog	Port of Amsterdam	03.11.2015	1
Prof. Mojib Latif	Meteorologist, climate scientist and patron of Atmosfair	04.11.2015	2
Jabok Völker	Atmosfair (NGO)	06.11.2015	3
Guido Carstensen	DNV GL (classification society)	09.11.2015	4
Sönke Diesener	NABU (NGO)	13.11.2015	5
Sacha Rougier	Cruise Gate Hamburg	20.11.2015	6
Natasha Brown	IMO	25.11.2015	7
Manfred Lebmeier	Hamburg Port Authority	01.12.2015	8
Eke Eijgelaar	Researcher	07.12.2015	9
Christian Becker	Becker Marine Systems (provider of high-performance rudders)	07.04.2016	10